## TRACTION DATA ANALYSIS

Part 1: Perfluoropolyalkylether Fluids



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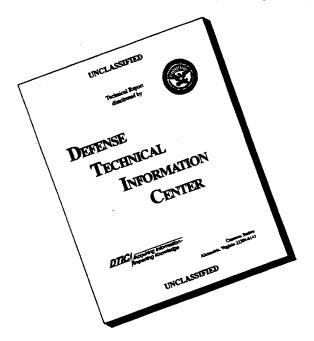
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correlated to a Newtonian	pressure-viscosit	ty-temperature relation. Appropriate
heological constants are	estimated, as a	function of inlet temperature and
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## **FOREWORD**

This report documents the first set of traction data and model correlations. All the experimental data were obtained at the Air Force Materials Directorate (WL/MLBT). The effort was carried out under Air Force Contract F33615-92-C-5902 with Mr. Shashi K. Sharma (WL/MLBT) as the Air Force Technical Monitor.

## 1. Executive Summary

#### Introduction

Rheological behavior of lubricants has proven to be a controlling factor in determining performance of mechanical components, such as, rolling bearings, gears, cams, and practically any mechanical system where lubricated rolling/sliding contacts are employed. The lubricant behavior as a function of pressure and temperature in the contact define the shear stress, which is integrated over the contact zone to determine overall traction force, which in turn leads to acceleration of interacting mechanical elements, thereby affecting dynamics of the mechanical component and overall performance of the system as a whole. Thus modeling the traction behavior of a lubricant has been of substantial practical significance. On a fundamental level the lubricant behavior has been either classified as Newtonian, where the viscosity varies as a function of pressure and temperature, or visco-elastic, where both viscosity and elastic properties, such as shear modulus and critical shear stress, define the lubricant behavior in a concentrated contact. A direct measurement of the constitutive constants in either of the models has been extremely difficult. For practical design stand point, therefore, the approach has been to experimentally measure lubricant traction. and then estimate the constitutive coefficients by regression analysis of the experimental data. Based on such a semiempirical approach, primary objective of the present investigation is to develop significant rheological parameters for perfluoropolyalkylether (PFPAE) type fluids which are presently used as a lubricant in a wide variety of space applications.

## **Experimental**

Conventional rolling disk type of apparatus constitutes the basic foundation of the experimental investigation. Specific details of the apparatus have been published in related publications [1-3] and they are omitted here for brevity. A pair of disk specimens are driven independently when a radial load is applied to form a concentrated contact. The rotational velocities of the disks are varied such that while the difference in the two surface velocities increases, sum of the two velocities is kept constant. Thus the rolling speed remains constant while the sliding velocity is varied. Torque transducers on one of the disk specimens measures the torque, which can be easily converted to traction force or traction coefficient, defined as a ratio of the traction force to applied normal load. The torque and slip signals are fed to a data acquisition system where the data may be digitized and stored for later processing. The experiment is repeated over a range of applied load, rolling velocities and operating temperatures. Such a data base is generated for each lubricant to be modeled.

## Test Specimens, Lubricants and Operating Conditions

Geometry of the disk specimens and the different variations of the PFPAE-type fluids considered in the present investigation are summarized in Table 1. Except for the first case (Lubricant A), where the disk geometry results in essentially a line contact, all test specimens produce a point contact geometry. The rolling radius is constant for all tests, while the crown radii have a small variation. For case A the crown radii are, of course, large to produce a line contact condition. The first three lubricants (cases A, B and C), listed in Table 1 are branched PFPAE fluids, similar to

the commercial fluids, known by the trade name of Krytox. Case D is a linear PFPAE fluid similar to the commercial Fomblin Z fluid. In fact, this fluid represents the commonly used base stock for other fully formulated Fomblin Z type fluids. For example, the fluid in case E is produced by introducing a 0.5% Ausimont additive to the base stock, in case D. The fluid in case F is very similar to that in case D, except that the base viscosity is somewhat higher. Finally, case G is another variation of a linear PFPAE fluid, similar to the commercial fluid Demnum S-20.

The inlet temperature in all cases varied in the range of 300 to 422 °K, while the range for rolling speed was approximately 2 to 20 M/S. Contact loads were varied to produce a variation of contact stress in the range of about 0.90 to 2.50 GPa. For the specimen geometry presented in Table 1, the contact ellipticity ratio for case A is 4.68 while the values for all other cases are approximately 1.0, corresponding a circular contact.

## **Viscosity-Pressure-Temperature Relations**

Viscosity data, as a function of pressure and temperature, for most of the fluids is available in the existing literature (1,4). For the present investigation, the data are fitted to an equation of the form:

$$\mu = \mu_o \left\{ \exp \alpha_1 p + \alpha_2 p^2 + \beta_1 \left( \frac{1}{T_o} - \frac{1}{T} \right) + \beta_2 \left( \frac{1}{T_o} - \frac{1}{T} \right)^2 + \gamma p \left( \frac{1}{T_o} - \frac{1}{T} \right) \right\}$$

where  $\mu$  is the viscosity at pressure p and temperature T,  $\mu_o$  is the reference viscosity at reference temperature  $T_o$ , and  $\alpha$ ,  $\beta$ ,  $\gamma$ , are respectively the viscosity-pressure, viscosity-temperature and viscosity-pressure-temperature coefficients.

The available data are curve fitted to the above equation and the various coefficients are computed by regression analysis. Typical fit is shown in Figure 1, and the computed coefficients for lubricant cases B, C, D and G are summarized in Table 2. Most of the available data are in the pressure range of 0 to 1 GPa. Behavior of the Krytox 143ab type fluid (case A) is assumed to be same as that of Krytox 143ac (case B), except that the base viscosity is set to a lower value of 0.23 Pa.S. Similarly, the behavior of Fomblin Z-25 type fluid (case F) is assumed to identical to that of case D with a higher base viscosity of 0.35 Pa.S. In case F it is assumed that the additive will have little or no effect on lubricant viscosity. The viscosity behavior in this case is, therefore, assumed to be identical to that in case D. Values for thermal conductivity for all fluids are closely similar. The actual values used in the present investigation are respectively 0.090, 0.098 and 0.08 N/S/°C for cases A to C, D to F, and G.

## **Data Preprocessing**

The raw experimental data consist of disk rpm and torque, as measured by a transducer on one of the disks. The data are generally plotted as torque versus the difference in the rpm of the two disks, which corresponds to relative slip. The relative slip is varied from a negative to a positive value. The first step in data preprocessing is to compute the effective data origin. This is done by simply integrating torque with respect to the slip velocity. Since the magnitude of slip velocity at the first and last data point are closely identical, and the directions of slip at these two extreme points are opposite to each other, the integrated toque value may be used to compute a mean

value, which by symmetry corresponds to a torque value at zero slip. This value is, therefore, subtracted from the toque data to compute the effective data origin. With the given normal load, and appropriate scale factors, the torque data may now be converted to traction coefficient versus slide-to-roll plots. Since the traction coefficient should not depend on the direction of slip, the traction curve may be folded over about the zero point. These two folded curves may now be used to compute a mean traction coefficient at a given slide-to-roll value. Also, the data may now be sampled to select a set of points which may be subsequently used in traction modeling.

## **Data Selection for Traction Modeling**

Although the experimental data are obtained over a broad variation of rolling velocity, it may not be possible to analytical model traction when the lubricant film thickness is less than a certain critical value, which is generally taken as three times the composite rms roughness of the two disks. Using such a criterion, the data at very low film thickness is excluded from traction modeling work.

## **Traction Modeling Procedure**

The approach for traction modeling is based on the work by Gupta [5], which is actually after the earlier work by Kannel and Walowit [6]. This model is essentially based on Newtonian behavior of the fluid in the contact zone, where the pressures are significantly higher than those at which the lubricant viscosity data, discussed above, is available. Thus another, some what simplified, viscosity relation is assumed to define lubricant traction:

$$\mu = \tilde{\mu}_o \exp \{ \tilde{\alpha} p + \tilde{\beta} (T_o - T) \}$$

where  $\tilde{\mu}_c$ ,  $\tilde{\alpha}$ , and  $\tilde{\beta}$  are the effective coefficients which define the viscosity behavior in the high pressure contact zone.

With the above assumption of lubricant behavior, traction modeling consists of two steps: first the lubricant behavior under ambient pressure is used to compute the lubricant film thickness, and then the energy equation is solved through the film to compute the shear stress distribution, using the above "effective" viscosity relation. The shear stress is, of course, expressed in terms of the three unknown coefficients. The computed shear stress is then integrated to compute the total traction force and thus a traction coefficients is computed in terms of the three coefficients in the viscosity relation. A least squared regression analysis of the available experimental traction data is now performed to compute the three coefficients, for best fit of the model to the experimental data. Analytical details of the model are omitted here, since a complete formulation has been published in earlier work [5].

As shown earlier [5,6], the above simplified model results in an almost closed form solution, once the three constitutive constants,  $\tilde{\mu}_o$ ,  $\tilde{\alpha}$ , and  $\tilde{\beta}$  are known. In addition the lubricant properties vary as a function of pressure and temperature throughout the contact. Such a property variation results in an accepTable simulation of all thermal effects. Such properties of this model make it computationally very efficient, and model implementation in practical design tools, such as rolling bearing dynamics analysis [7], becomes quite straight forward.

An alternate approach to model traction behavior is based on visco-elastic effects [8,9]. Here, the pertinent lubricant properties, in addition to viscosity, include shear modulus and critical shear stress beyond which the viscous effect becomes significant. Again the properties may vary with pressure and temperature. However, the model is computationally more complex and generally requires integration of a differential equation through the lubricant film, and therefore, model implementation to practical design tools is somewhat more difficult. Some simplifications are possible if constant properties are used [7]. However, under such simplifications the simulation of thermal effects becomes difficult. For the set for fluids considered in the present investigation, the thermal effects are significant, as seen by reducing traction coefficient at higher slip velocities. The visco-elastic model with constant properties, therefore, does not provide a good fit to the data. A typical comparison of the two models is shown in Figure 2. Thus, with the primary objective of deriving model coefficients, for numerically efficient traction prediction for practical designs, the present investigation is limited to the Newtonian model. A more rigorous evaluation of the visco-elastic model is deferred to future investigations.

#### Results

Typical model correlations for the Krytox-type fluids are shown in Figure 3, which displays the data for the cases A and C. In case A the traction slope at low slip velocities is noticeably higher than that seen in case C; this results in a higher value of the effective pressure-viscosity coefficient. Overall traction coefficients, however, are lower for case A than those for case C. Note that the contact geometry in case A has an ellipticity ratio of 4.68 compared to 1.0 for case C. Also, the ambient viscosity in case A is significantly lower than that in case C. Behavior of the fluid in case B, is quite similar to that seen in case C, in terms of the traction slope, although the overall traction coefficients are somewhat lower for case B in comparison to case C, in spite of relatively higher ambient viscosity for case B. In fact, the overall traction values for case B are almost at the mid point of cases A and C. Such observations lead to the conclusion that viscosity behavior in the low pressure region may not have a significant correlation to overall traction, which may be more related to viscosity behavior in the higher pressure zone. The overall model coefficients, as computed by regression analysis, for cases A to C are summarized in Table 3.

Overall model correlations for the linear fluids are similar, in nature, to those discussed above. Figure 4 compares the base fluid in case D with the fluid with an additive (0.5% Ausimont) in case E. Note that the fluid with additive (case E) results in overall higher traction coefficient; also, the traction slope appears to be somewhat higher. Although at lower rolling velocities the slopes are closely similar. Behavior of the higher ambient viscosity base stock in case F, is almost identical to that of base stock in case D, except that the regression analysis indicates a slightly higher traction slope. For the linear fluid in case G, the overall traction coefficients, when compared to those seen with cases D, E and F, are significantly higher, although the traction slopes are similar. The various model coefficients for all the linear fluids, case D to G, are summarized in Table 4.

#### Conclusions

For the purpose of traction prediction in practical design applications, a Newtonian model may be used for both branched and linear PFPAE fluids. However, the viscosity relation in the lower pressure region may not have any correlation to traction, which is primarily determined by the lubri-

cant behavior in the high pressure region of the contact zone. It is, therefore, essential to estimate lubricant viscosity behavior in the high pressure zone. The various constitutive coefficients of such an effective viscosity-pressure-temperature relation may be computed from regression analysis of experimental traction data. Traction coefficients, computed from these estimated viscosity relations, for all fluids considered in the present investigation show acceptable correlations. The model coefficients may, therefore, be readily used in practical designs.

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Table 1: Test Lubricants and Disk Specimen Geometry

Test			Disk Geometry			
Case #	Test Codes	Similar Commercial Product	Rolling Radius	Crown Ra	Crown Radius (mm)	
"				Disk 1	Disk 2	
Α	BN 90-629	Krytox 143ab	19.050	203.200	203.200	
В	CB 71-6	Krytox 143ac	19.050	23.110	24.892	
С	CG 66-92	Krytox 143az	19.050	18.542	17.780	
D	BZ 78-80	Fomblin Z04 Base	19.050	19.304	19.304	
Е	CF 92-162	Fomblin Z +0.5% Ausimont	19.050	18.542	17.788	
F	CH 89-191	Fomblin Z25 Base	19.050	20.320	22.860	
G	CE 88-177	Demnum S20	19.050	30.480	30.480	

Table 2: Viscosity-Pressure-Temperature Relations Reference Temperature  $T_0 = 300 \, ^{\rm o} {\rm K}$ 

Lubricant	μ <sub>o</sub> (Pa.S)	α <sub>1</sub> (1/GPa)	$\alpha_2$ $(1/\text{GPa})^2$	β <sub>1</sub> (1/K) x10 <sup>-3</sup>	$\beta_2$ $(1/K)^2$ $x10^{-6}$	γ (1/K/GPa) x10 <sup>5</sup>
B: Krytox 143ac	1.433	40.35	-9.684	6.756	2.528	2.124
C: Krytox 143az	0.06059	29.81	-4.354	5.702	3.097	1.608
D: Fomblin Z04	0.04602	15.89	-5.287	1.931	0.02951	0.6171
G: Demnum S20	0.1150	2.057	-5.328	4.851	2.192	0.8289

**Table 3: Effective Coefficients for Branched Fluids** 

	D 11		ox 143ab	•	x 143ac	-	ox 143az
Inlet Temp	Roll Velo	$\tilde{\alpha} = 5.5$	1/GPa	$\tilde{\alpha} = 1.7$	1/GPa	$\tilde{\alpha} = 1.7$	1/GPa
(K)	(M/S)	$ ilde{\mu}_o$	$\tilde{\beta}$ .	$ ilde{oldsymbol{\mu}}_o$	$\tilde{eta}$	$ ilde{\mu}_o$	$\tilde{\beta}$
		(Pa.S)	(1/K)	(Pa.S)	(1/K)	(Pa.S)	(1/K)
300	5					193.0	0.0373
000	10	5.624	0.0252			147.9	0.0375
	15	3.385	0.0285				
	20	3.031	0.0336			80.00	0.0230
311	5					113.8	0.0424
	10 15	5.184 3.150	0.0299			96.98	0.0292
	20	2.579	0.0262			68.78	0.0221
220						l	
339	5 10	3.562	0.0545	183.9	0.0294	38.96 35.01	0.0839
	15	2.833	0.0343	139.4	0.0294	33.01	0.0448
	20	2.343	0.0364	99.01	0.0301	32.47	0.0283
367	5					14.27	0.166
307	10	1.507	0.113	101.6	0.0425	11.33	0.100
	15	1.243	0.0726	92.83	0.0340		
-	20	1.298	0.0625	78.13	0.0286	14.08	0.0456
394	5					6.729	0.315
	10	0.5648	0.256	48.46	0.0800	5.762	0.141
	15 20	0.4795 0.5617	0.140 0.121	49.48 50.56	0.0572 0.0450	5.944	0.0737
		3.2317	J.1.2.1	0.50	3.0 130		
422	5	0.1000	0.460	00.50	0.100	2.818	0.454
	10 15	0.1822 0.1995	0.460 0.277	22.72 23.95	0.132 0.0929	2.613	0.251
	20	0.1333	0.229	23.54	0.0665	2.903	0.127

**Table 4: Effective Coefficients for Linear Fluids** 

Inlet Temp	Roll Velo	$\tilde{\alpha} = 3.0$	blin Z04 ) 1/GPa	$\tilde{\alpha}=3.$	E: Fomblin Z+ $\tilde{\alpha} = 3.0 \text{ 1/GPa}$		F: Fomblin Z25 $\tilde{\alpha} = 3.5 \text{ 1/GPa}$		G: Demnum S20 $\tilde{\alpha} = 2.5 \text{ 1/GPa}$	
(K)	(M/S)	$\tilde{\mu}_o$ (Pa.S)	β̃ (1/K)	$\tilde{\mu}_o$ (Pa.S)	β̃ (1/K)	$\tilde{\mu}_o$ (Pa.S)	β (1/K)	$\tilde{\mu}_o$ (Pa.S)	β̃ (1/K)	
300	5 10 15 20	11.12 8.696 11.07 10.75	0.101 0.0651 0.0546 0.0452	13.56 11.04 20.78	0.0545 0.0278 0.0162	15.53 13.66 34.26	0.0150 0.00806 0.00570	54.13 48.85 35.09 25.20	0.0332 0.0347 0.0351 0.0379	
311	5 10 15 20	7.296 4.813 8.058 8.401	0.117 0.0630 0.0569 0.0476	7.651 5.710 16.68	0.0452 0.0220 0.0148	14.46 13.68 31.84	0.0142 0.00744 0.00522	38.54 39.89 31.05 24.34	0.0376 0.0352 0.0334 0.0311	
339	5 10 15 20	2.563 2.227 4.015 4.082	0.128 0.0707 0.0664 0.0505	5.505 3.691 9.244	0.0366 0.0184 0.0132	8.402 6.690 18.74	0.0133 0.00699 0.00494	11.49 13.90 13.92 13.04	0.0594 0.0438 0.0362 0.0289	
367	5 10 15 20	1.429 1.094 2.277 2.834	0.139 0.0772 0.0778 0.0578	3.296 2.713 7.664	0.0360 0.0164 0.0124	4.995 4.405 7.496	0.0123 0.00689 0.00415	4.708 5.193 5.649 6.838	0.0869 0.0597 0.0456 0.0393	
394	5 10 15 20	1.035 0.5730 1.108 1.369	0.160 0.0884 0.0813 0.0597	2.230 1.713 4.368	0.0352 0.0142 0.0108	2.182 2.301 5.244	0.0110 0.00633 0.00393	2.147 1.789 2.352 2.900	0.142 0.0766 0.0650 0.0542	
422	5 10 15 20	0.2519 0.207 0.6034	0.288 0.0918 0.0916	1.048 0.9692 2.598	0.0405 0.0147 0.0101	1.182 1.268 3.141	0.0149 0.00607 0.00402	1.266 0.795 1.042 1.373	0.276 0.114 0.0909 0.0806	

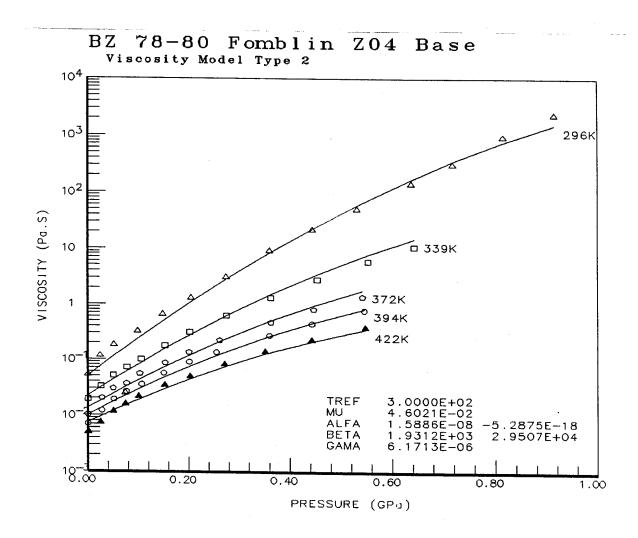


Figure 1.
Typical viscosity-pressure-temperature data.

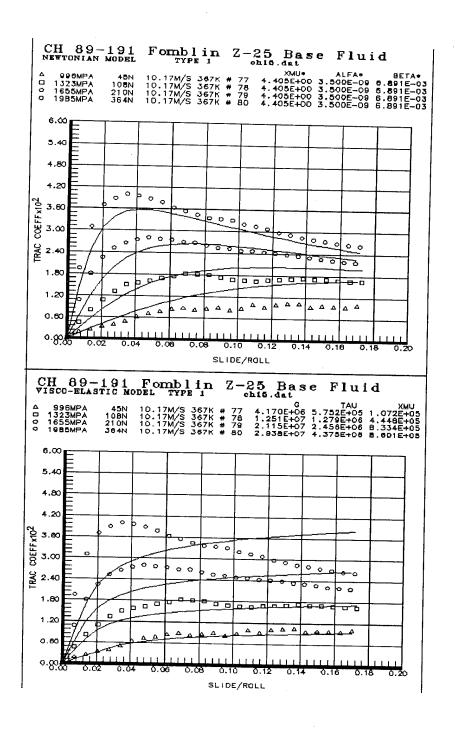


Figure 2.
Comparison of the Newtonian and visco-elastic model with constant properties.

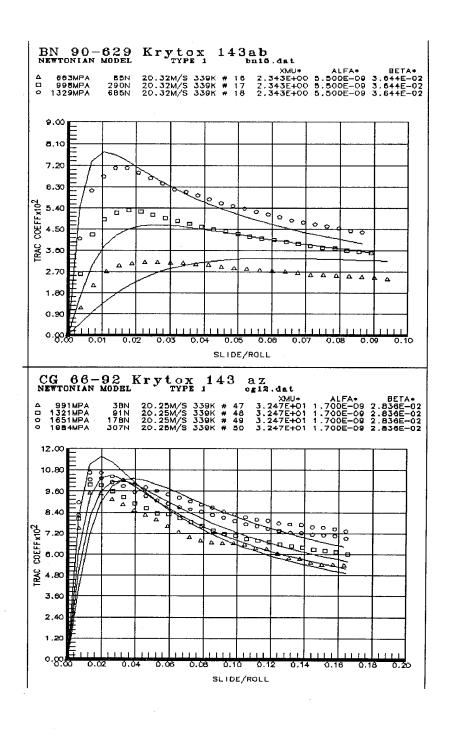


Figure 3.

Typical traction data correlations to the Newtonian model.

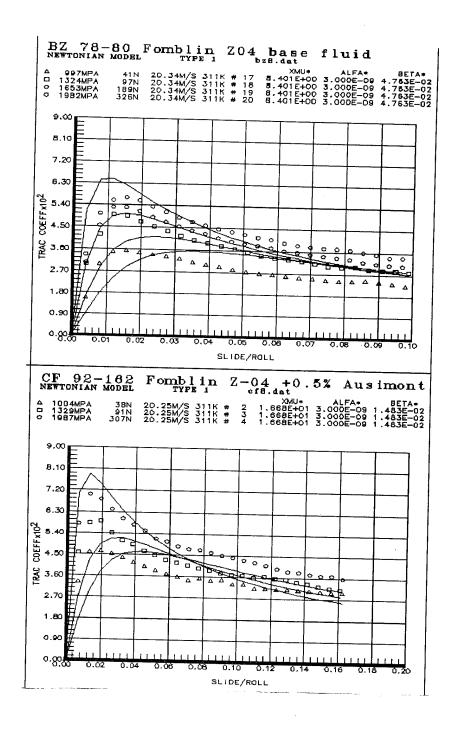


Figure 4. Effect of 0.5% Ausimont additive on traction with a linear PFPAE fluid.

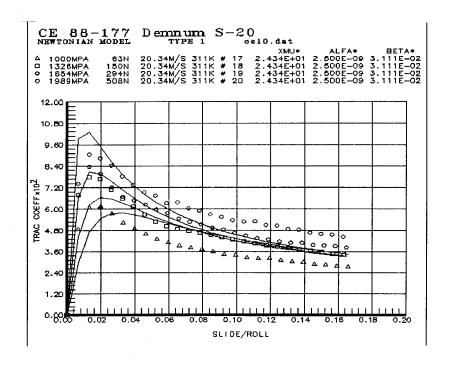


Figure 5.
Traction with the Demnum S-20 type PFPAE linear fluid.

# 2. Traction Data Set A: 90-629 Krytox 143ab

Data set name: BN 90-629 Krytox 143ab Rolling radii [Disks 1 & 2] (in): 0.75 0.75 Crown radii [Disks 1 & 2] (in): 8.00 8.00

Number of data sets found = 135

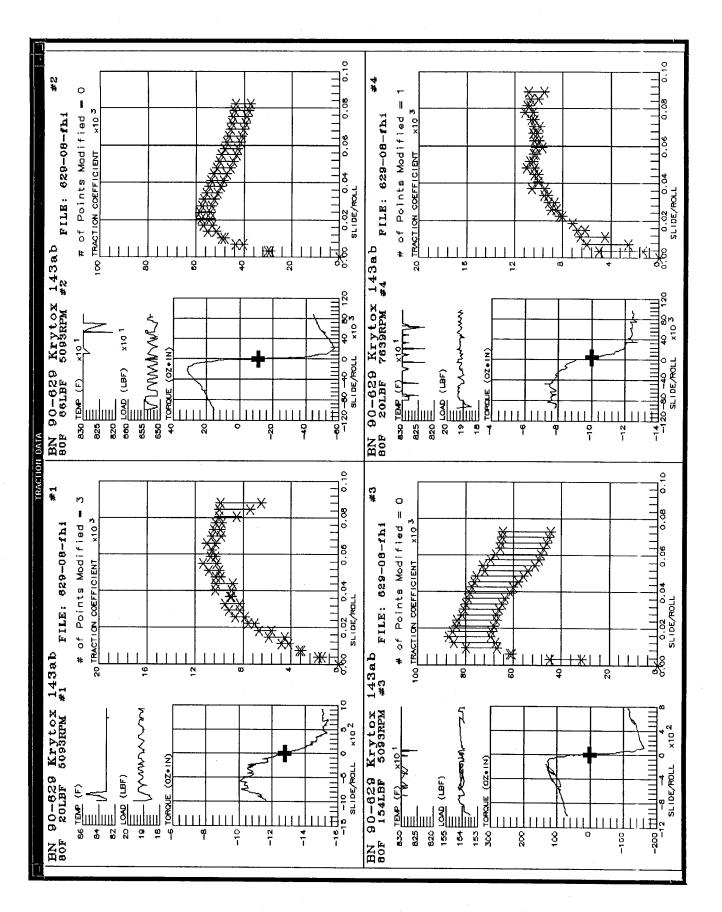
	Temp F	Load lbf	Rpm1	Rpm2	RollRpm	Points	Dataset/Test #
1	80.00	19.10	4838.00	5348.00	5093.00	100	629-08-fhi #1
ż	80.00	65.25	4838.00	5348.00	5093.00	100	629-08-fhi #2
3	80.00	154.00	4838.00	5348.00	5093.00	100	629-08-fhi #3
4	80.00	19.10	7257.00	8021.00	7639.00	100	629-08-fhi #4
5	80.00	65.25	7257.00	8021.00	7639.00	100	629-08-fhi #5
6	80.00	154.00	7257.00	8021.00	7639.00	100	629-08-fhi #6
7	80.00	19,10	9677.00	10695.00	10186.00	100	629-08-fhi #7
ė.	80.00	65.25	9677.00	10695.00	10186.00	100	629-08-fhi #8
9	80.00	154.00	9677.00	10695.00	10186.00	100	629-08-fhi #9
10	150.00	19.10	4838.00	5348.00	5093.00	100	629-15-fhi #1
11	150.00	65.25	4838.00	5348.00	5093.00	100	629-15-fhi #2
12	150.00	154.00	4838.00	5348.00	5093.00	100	629-15-fhi #3
13	150.00	19.10	7257.00	8021.00	7639.00	100	629-15-fhi #4
14	150.00	65.25	7257.00	8021.00	7639.00	100	629-15-fhi #5
15	150.00	154.00	7257.00	8021.00	7639.00	100	629-15-fhi #6
16	150.00	19.10	9677.00	10695.00	10186.00	100	629-15-fhi #7
17	150.00	65.25	9677.00	10695.00	10186.00	100	629-15-fhi #8 629-15-fhi #9
18	150.00	154.00	9677.00	10695.00	10186.00	100	629 08 flow #1
19	80.00	19.10	302.00	334.00	318.00	100 100	629_08_flow #2
20	80.00	65.25	302.00	334.00	318.00	100	629 08 flow #3
21	80.00	154.00	302.00	334.00	318.00	100	629 08 flow #4
22	80.00	19.10	334.00	302.00	318.00	100	629 08 flow #5
23	80.00	65.25	334.00	302.00	318.00 318.00	100	629 08 flow #6
24	80.00	154.00	334.00	302.00	1273.00	100	629 08 flow #7
25	80.00	19.10	1209.00	1337.00	1273.00	100	629 08 flow #8
26	80.00	65.25	1209.00	1337.00	1273.00	100	629 08 flow #9
27	80.00	154.00	1209.00	1337.00		100	629 08 flow #10
28	80.00	19.10	1337.00	1209.00	1273.00	100	629 08 flow #11
29	80.00	65.25	1337.00	1209.00	1273.00	100	629 08 flow #12
30	80.00	154.00	1337.00	1209.00	1273.00	100	629 08 flow #13
31	80.00	19.10	2419.00	2673.00	2546.00	100	629_08_flow #14
-32	80.00	65.25	2419.00	2673.00	2546.00		629 08 flow #15
33	80.00	154.00	2419.00	2673.00	2546.00	100	629 08 flow #16
34	80.00	19.10	2673.00	2419.00	2546.00	100 100	629 08 flow #17
35	80.00	65.25	2673.00	2419.00	2546.00	100	629 08 flow #18
36	80.00	154.00	2673.00	2419.00	2546.00	100	629 10 fhi #1
37	100.00	19.10	4838.00	5348.00	5093.00	100	629_10_fhi #2
38	100.00	65.25	4838.00	5348.00	5093.00 5093.00	100	629 10 fhi #3
39	100.00	154.00	4838.00	5348.00	7639.00	100	629 10 fhi #4
40	100.00	19.10	7257.00	8021.00 8021.00	7639.00	100	629 10 fhi #5
41	100.00	65.25	7257.00 7257.00	8021.00	7639.00	100	629 10 fhi #6
42	100.00	154.00 19.10	9677.00	10695.00	10186.00		629 10 fhi #7
43	100.00	65.25	9677.00	10695.00	10186.00		629 10 fhi #8
44 45	100.00	154.00	9677.00	10695.00	10186.00		629_10_fhi #9
45 46	100.00	19.10	302.00	334.00	318.00		629 10 flow #1
45	100.00	65.25	302.00	334.00	318.00		629 10 flow #2
48	100.00	154.00	302.00	334.00	318.00		629_10_flow #3
49	100.00	19.10	334.00	302.00	318.00		629 <u>_</u> 10_flow #4
50	100.00		334.00	302.00	318.00		629 <u>_</u> 10_flow #5
							***

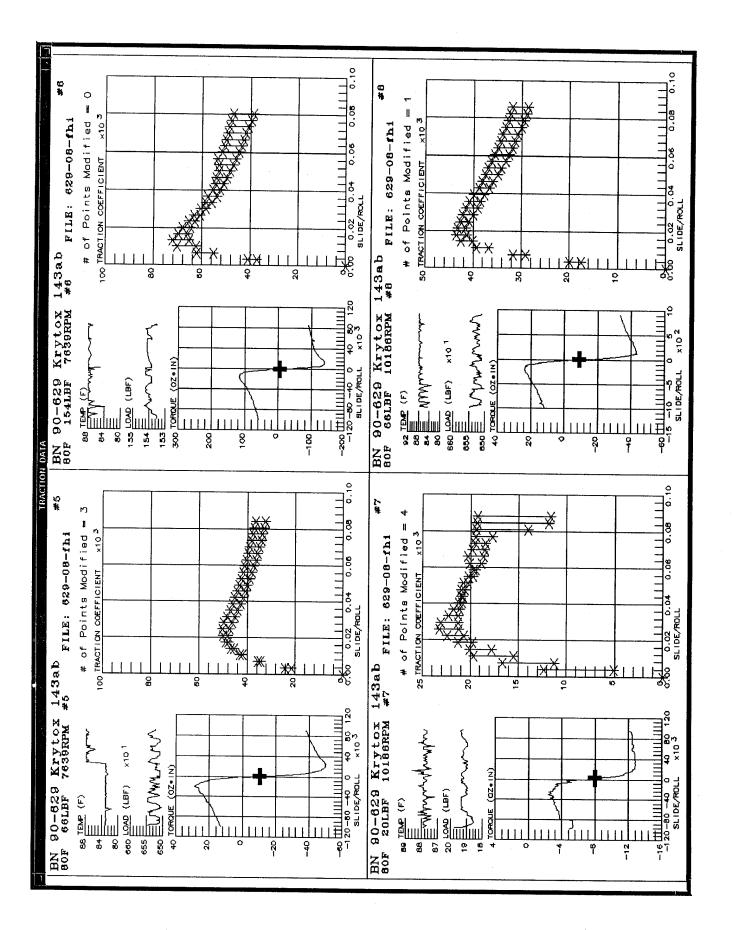
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52 53	100.00	19.10	1209.00	1337.00	1273.00	100	629_10_flow #7
54	100.00	65.25 154.00	1209.00 1209.00	1337.00 1337.00	1273.00 1273.00	100 100	629_10_flow #8
55	100.00	19.10	1337.00	1209.00	1273.00	100	629_10_flow #9 629 10 flow #10
56	100.00	65.25	1337.00	1209.00	1273.00	100	629_10_flow #11
57	100.00	154.00	1337.00	1209.00	1273.00	100	629_10_flow #12
58 59	100.00 100.00	19.10 65.25	2419.00 2419.00	2673.00	2546.00	100	629_10_flow #13
60	100.00	154.00	2419.00	2673.00 2673.00	2546.00 2546.00	100 100	629_10_flow #14
61	100.00	19.10	2673.00	2419.00	2546.00	100	629_10_flow #15 629_10_flow #16
62	100.00	65.25	2673.00	2419.00	2546.00	100	629 10 flow #17
63	100.00	154.00	2673.00	2419.00	2546.00	100	629_10_flow #18
64 65	150.00 150.00	19.10	302.00	334.00	318.00	100	629_15_flow #1
66	150.00	65.25 154.00	302.00 302.00	334.00 334.00	318.00 318.00	100	629_15_flow #2
67	150.00	19.10	334.00	302.00	318.00	100 100	629_15_flow #3 629 15 flow #4
68	150.00	65.25	334.00	302.00	318.00	100	629 15 flow #5
69	150.00	154.00	334.00	302.00	318.00	100	629 15 flow #6
70	150.00	19.10	1209.00	1337.00	1273.00	100	629_15_flow #7
71 72	150.00 150.00	65.25	1209.00	1337.00	1273.00	100	629_15_flow #8
73	150.00	154.00 19.10	1209.00 1337.00	1337.00 1209.00	1273.00 1273.00	100	629_15_flow #9
74	150.00	65.25	1337.00	1209.00	1273.00	100 100	629_15_flow #10 629_15_flow #11
75	150.00	154.00	1337.00	1209.00	1273.00	100	629_15_flow #12
76 77	150.00	19.10	2419.00	2673.00	2546.00	100	629_15_flow #13
77 78	150.00 150.00	65.25 154.00	2419.00 2419.00	2673.00 2673.00	2546.00	100	629_15_flow #14
79	150.00	19.10	2673.00	2419.00	2546.00 2546.00	100 100	629 15 flow #15 629 15 flow #16
80	150.00	65.25	2673.00	2419.00	2546.00	100	629 15 flow #17
81	150.00	154.00	2673.00	2419.00	2546.00	100	629_15_flow #18
82 83	200.00	19.10 65.25	4838.00 4838.00	5348.00	5093.00	100	629_20_fhi #1
84	200.00	154.00	4838.00	5348.00 5348.00	5093.00 5093.00	100 100	629_20_fhi #2 629_20_fhi #3
85	200.00	19.10	7257.00	8021.00	7639.00	100	629 20 fhi #4
86	200.00	65.25	7257.00	8021.00	7639.00	100	629_20_fhi #5
87 88	200.00	154.00 19.10	7257.00	8021.00	7639.00	100	629_20_fhi #6
89	200.00	65.25	9677.00 9677.00	10695.00 10695.00	10186.00 10186.00	100 100	629_20_fhi #7 629_20_fhi #8
90	200.00	154.00	9677.00	10695.00	10186.00	100	629_20_fhi #9
91	200.00	19.10	302.00	334.00	318.00	100	629 20 flow #1
92	200.00	65.25	302.00	334.00	318.00	100	629_20_flow #2
93 94	200.00	154.00 19.10	302.00 1209.00	334.00 1337.00	318.00 1273.00	100	629_20_flow #3
95	200.00	65.25	1209.00	1337.00	1273.00	100 100	629_20_flow #4 629_20_flow #5
96	200.00	154.00	1209.00	1337.00	1273.00	100	629 20 flow #6
97 98	200.00	19.10	2419.00	2673.00	2546.00	100	629_20_flow #7
99	200.00	65.25 154.00	2419.00 2419.00	2673.00 2673.00	2546.00 2546.00	100	629_20_flow #8
100	250.00	19.10	4838.00	5348.00	5093.00	100 100	629_20_flow #9 629_25_fhi #1
101	250.00	65.25	4838.00	5348.00	5093.00	100	629_25_fhi #2
102	250.00	154.00	4838.00	5348.00	5093.00	100	629 <u>-</u> 25_fhi #3
103 104	250.00 250.00	19.10 65.25	7257.00 7257.00	8021.00	7639.00	100	629_25_fhi #4
105	250.00	154.00	7257.00	8021.00 8021.00	7639.00 7639.00	100 100	629_25_fhi #5 629_25_fhi #6
106	250.00	19.10	9677.00	10695.00	10186.00	100	629 25 fhi #7
107	250.00	65.25	9677.00	10695.00	10186.00	100	629 <sup>-</sup> 25 <sup>-</sup> fhi #8
108 109	250.00	154.00	9677.00	10695.00	10186.00	100	629_25_fhi #9
110	250.00 250.00	19.10 65.25	302.00 302.00	334.00 334.00	318.00 318.00	100 100	629 25 flow #1 629 25 flow #2
111	250.00	154.00	302.00	334.00	318.00	100	629_25_flow #2
112	250.00	19.10	1209.00	1337.00	1273.00	100	629_25_flow #4
113	250.00	65.25	1209.00	1337.00	1273.00	100	629_25_flow #5
114 115	250.00 250.00	154.00 19.10	1209.00 2419.00	1337.00 2673.00	1273.00 2546.00	100 100	629_25_flow #6
116	250.00	65.25	2419.00	2673.00	2546.00	100	629_25_flow #7 629_25_flow #8
117	250.00	154.00	2419.00	2673.00	2546.00	100	629_25_flow #9
118 119	300.00 300.00	19.10 65.25	4838.00	5348.00	5093.00	100	629_30_fhi #1
120	300.00	154.00	4838.00 4838.00	5348.00 5348.00	5093.00 5093.00	100 100	629_30_fhi #2 629_30_fhi #3
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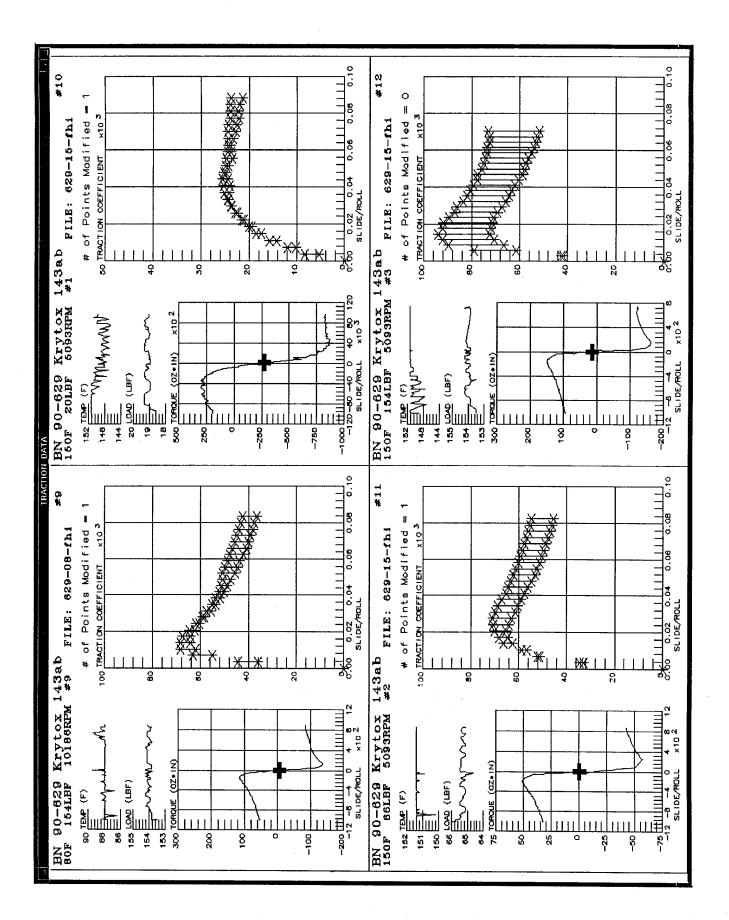
Data set: BN 90-629 Krytox 143ab ....continued

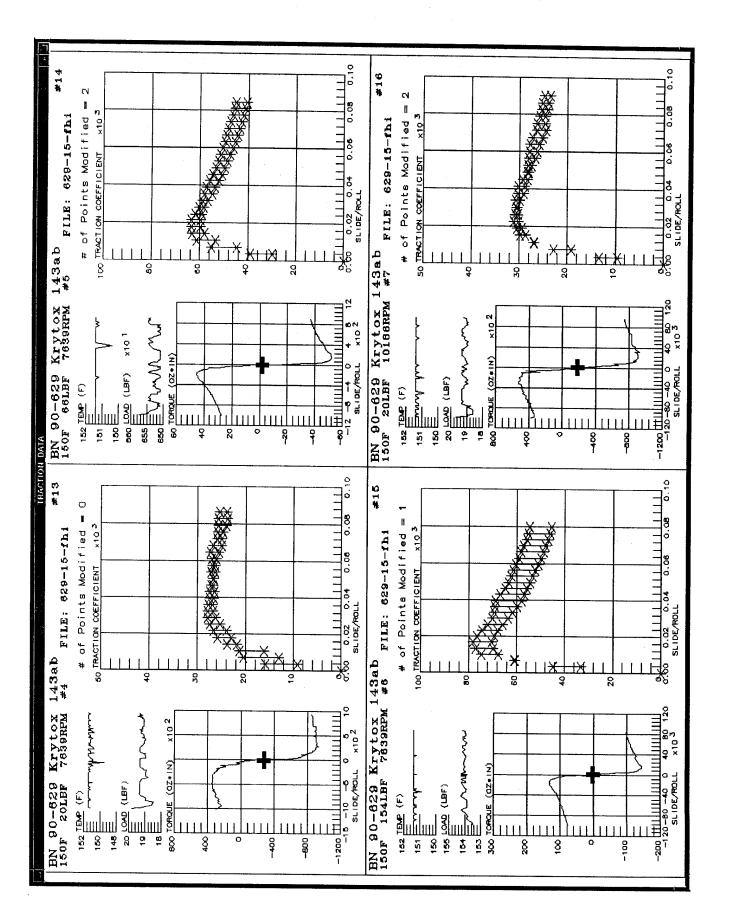
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121 122 123 124 125 126 127 128 129 130 131 132 133 134	300.00 300.00 300.00 300.00 300.00 300.00 300.00 300.00 300.00 300.00 300.00 300.00	19.10 65.25 154.00 19.10 65.25 154.00 19.10 65.25 154.00 19.10 65.25 154.00 19.10 65.25	7257.00 7257.00 7257.00 9677.00 9677.00 302.00 302.00 302.00 1209.00 1209.00 1209.00 2419.00 2419.00	8021.00 8021.00 8021.00 10695.00 10695.00 334.00 334.00 1337.00 1337.00 2673.00 2673.00	7639.00 7639.00 7639.00 10186.00 10186.00 318.00 318.00 1273.00 1273.00 1273.00 2546.00 2546.00	100 100 100 100 100 100 100 100 100 100	629_30_fhi #4 629_30_fhi #5 629_30_fhi #6 629_30_fhi #7 629_30_fhi #8 629_30_fhow #1 629_30_flow #2 629_30_flow #2 629_30_flow #4 629_30_flow #5 629_30_flow #6 629_30_flow #8 629_30_flow #8 629_30_flow #8 629_30_flow #8

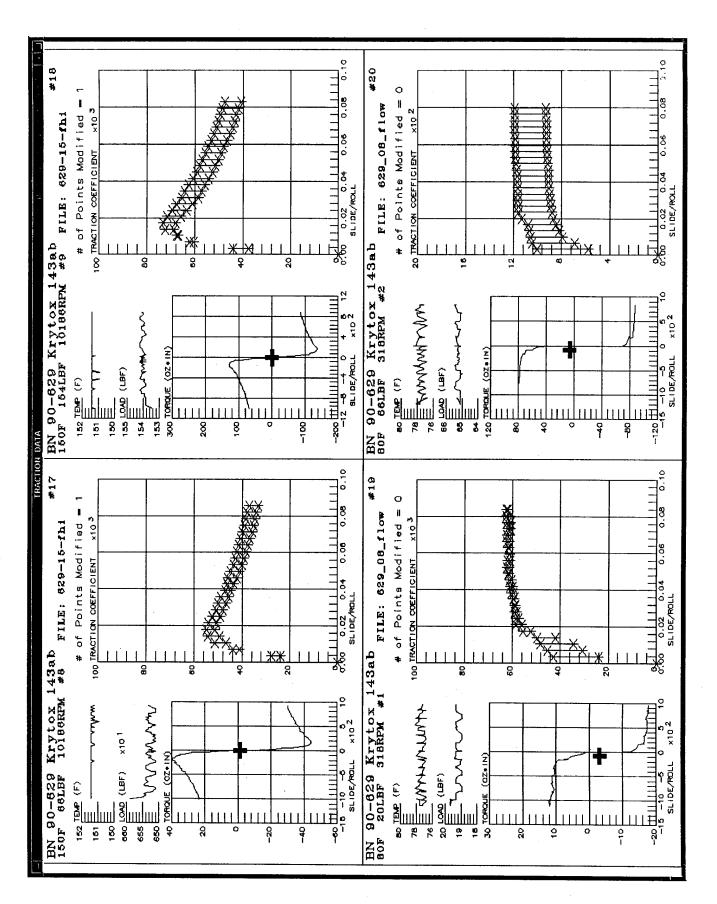
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bn2.dat	80.00	2546.00	34 35 36
bn3.dat	80.00	5093.00	1 2 3
bn4.dat	80.00	7639.00	4 5 6
bn5.dat	80.00	10186.00	7 8 9
bn6.dat	100.00	1273.00	55 56 57
bn7.dat	100.00	2546.00	61 62 63
bn8.dat	100.00	5093.00	37 38 39
bn9.dat	100.00	7639,00	40 41 42
bn10.dat	100.00	10186.00	43 44 45
bn11.dat	150.00	1273.00	73 74 75
bn12.dat	150.00	2546.00	79 80 81
bn13.dat	150.00	5093.00	10 11 12
bn14.dat	150.00	7639.00	13 14 15
bn15.dat	150.00	10186.00	16 17 18
bn16.dat	200.00	1273.00	94 95 96
bn17.dat	200.00	2546.00	97 98 99
bn18.dat	200.00	5093.00	82 83 84
bn19.dat	200.00	7639.00	85 86 87
bn20.dat	200.00	10186.00	88 89 90
bn21.dat	250.00	1273.00	112 113 114
bn22.dat	250.00	2546.00	115 116 117
bn23.dat	250.00	5093.00	100 101 102
bn24.dat	250.00	7639.00	103 104 105
bn25.dat	250.00	10186.00	106 107 108
bn26.dat	300.00	1273.00	130 131 132
bn27.dat	300.00	2546.00	133 134 135
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bn29.dat	300.00	7639.00	121 122 123
bn30.dat	300.00	10186.00	124 125 126

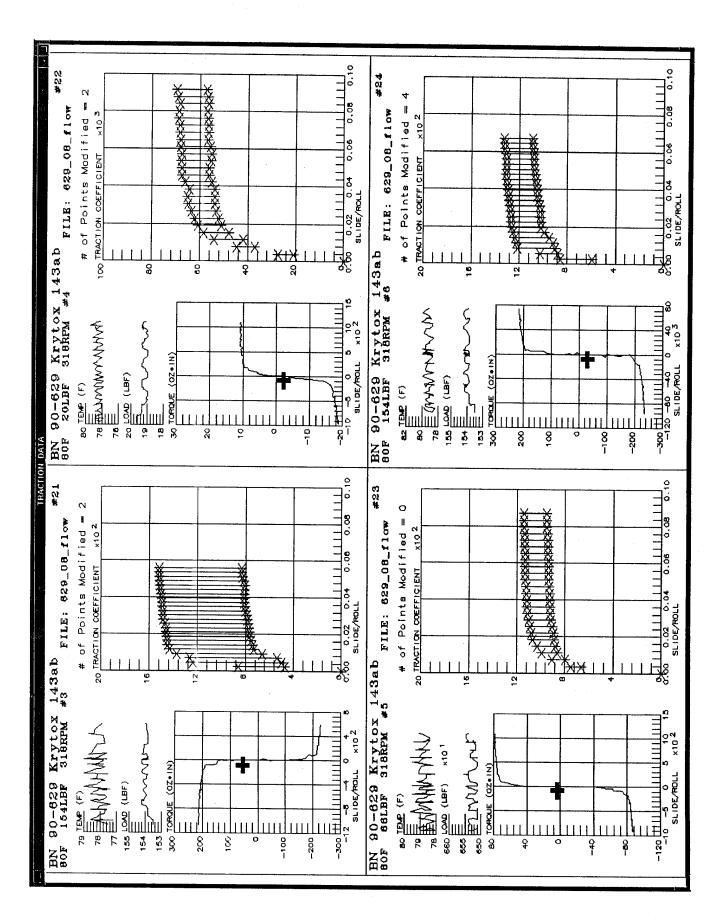


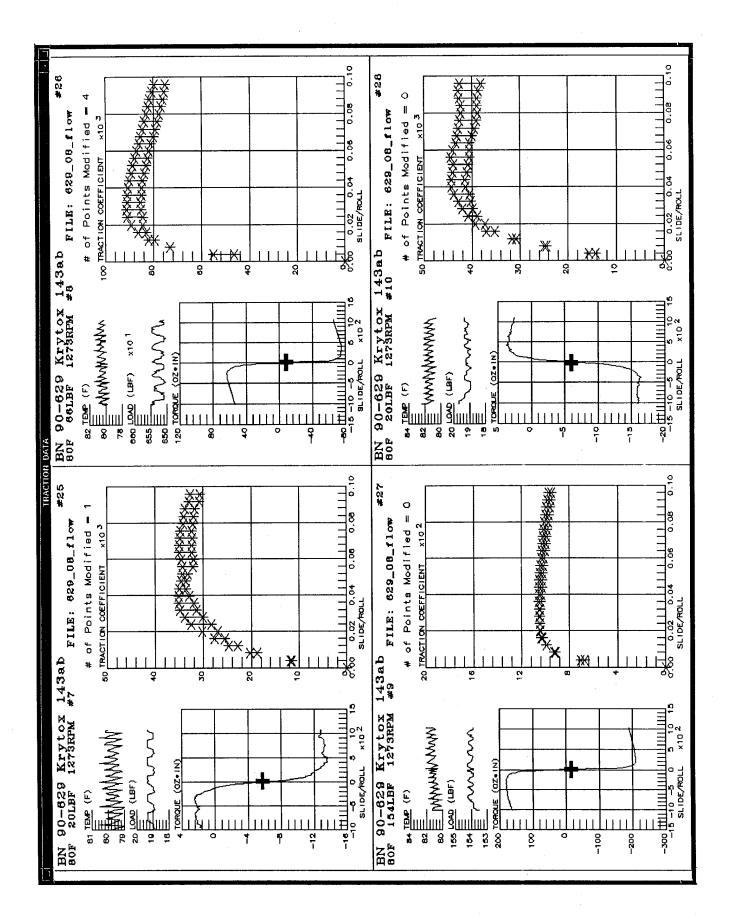


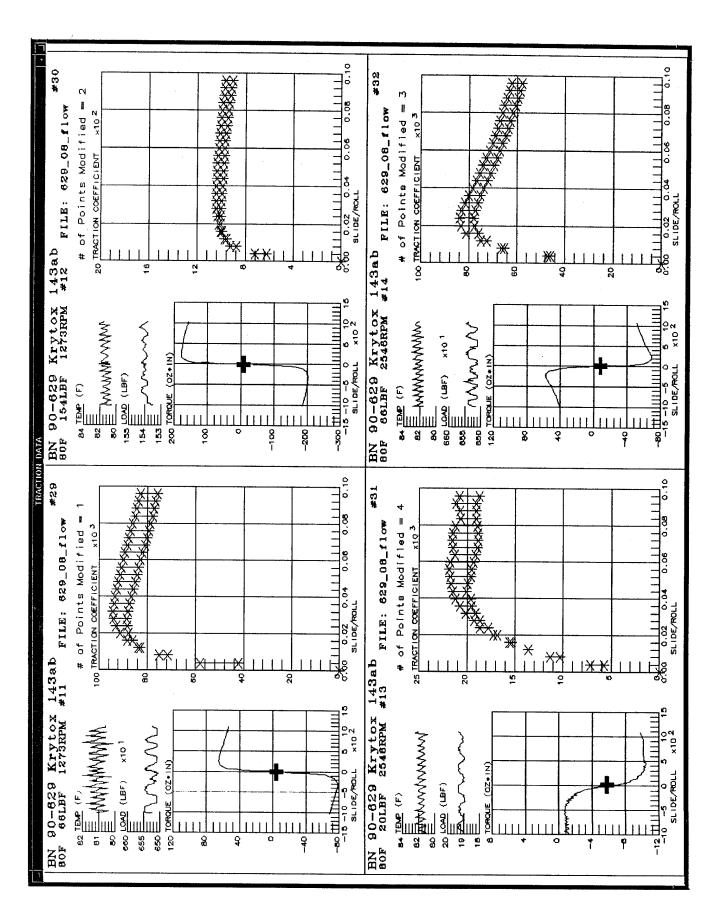


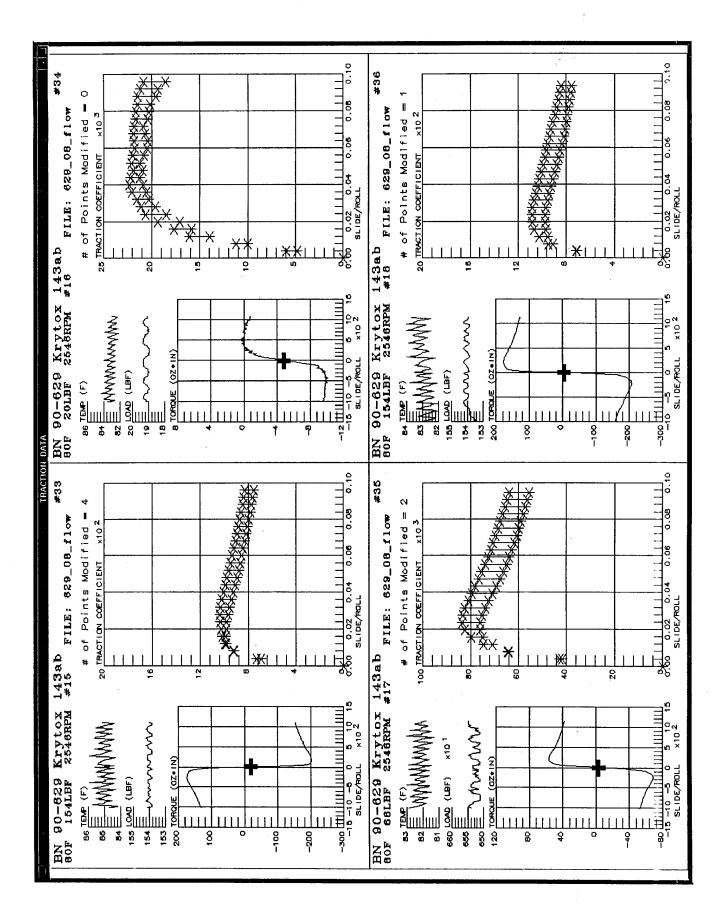


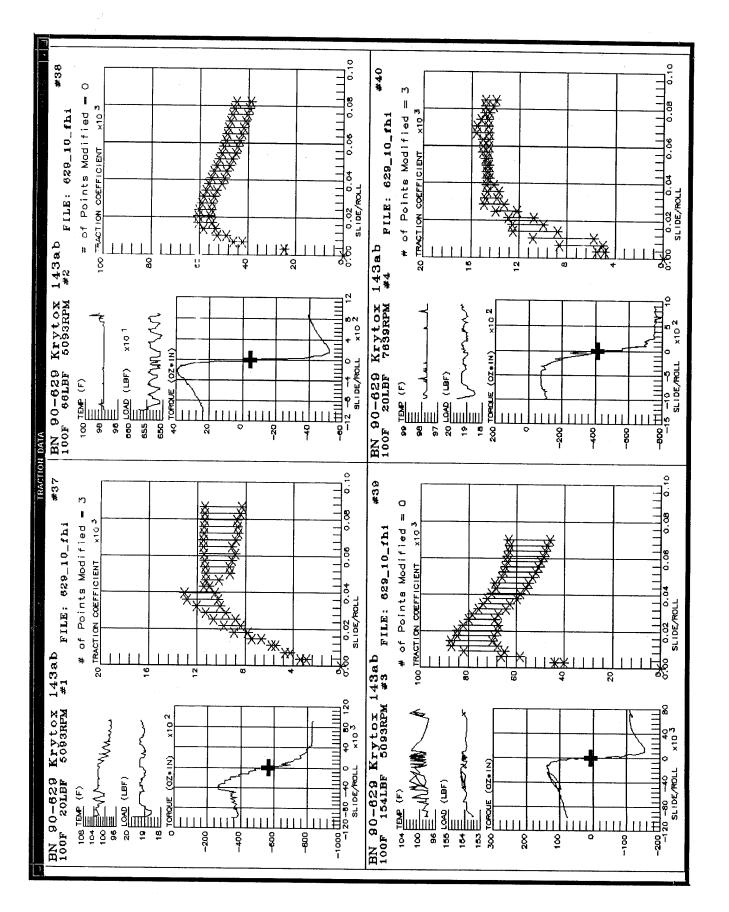


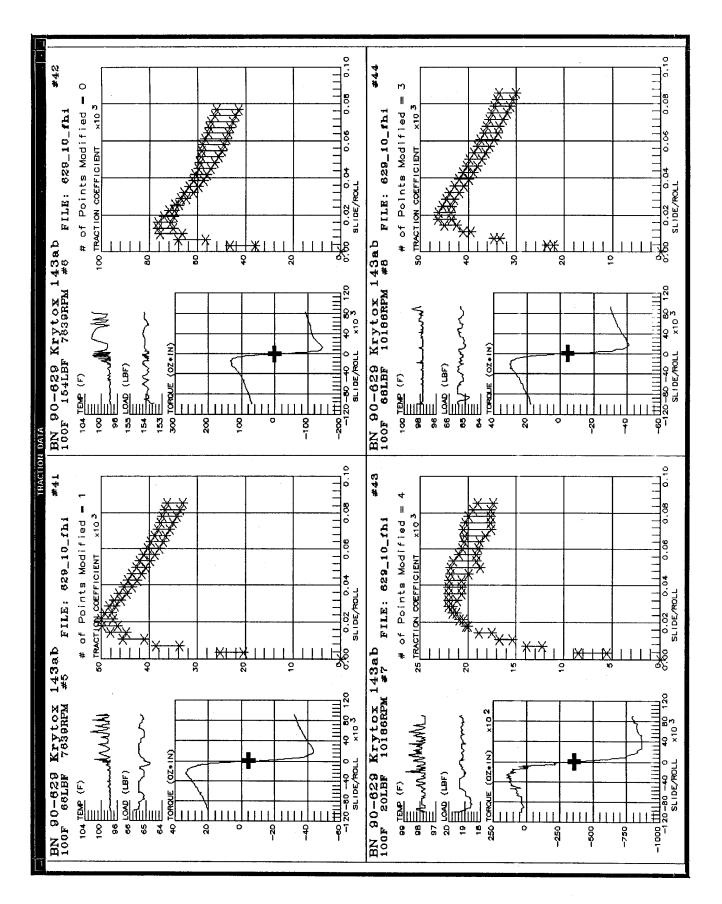


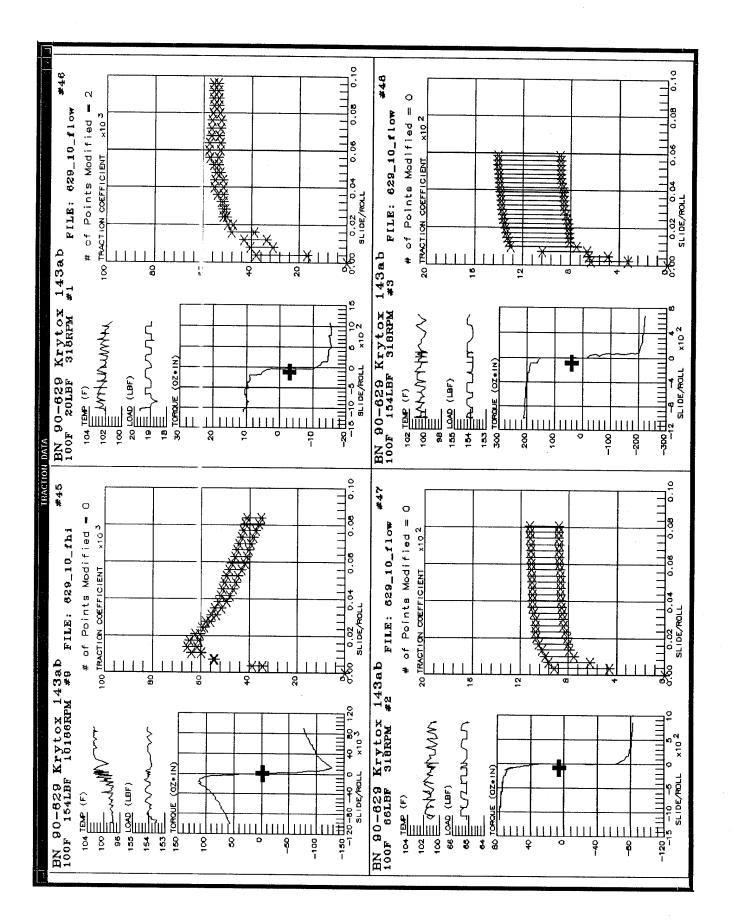


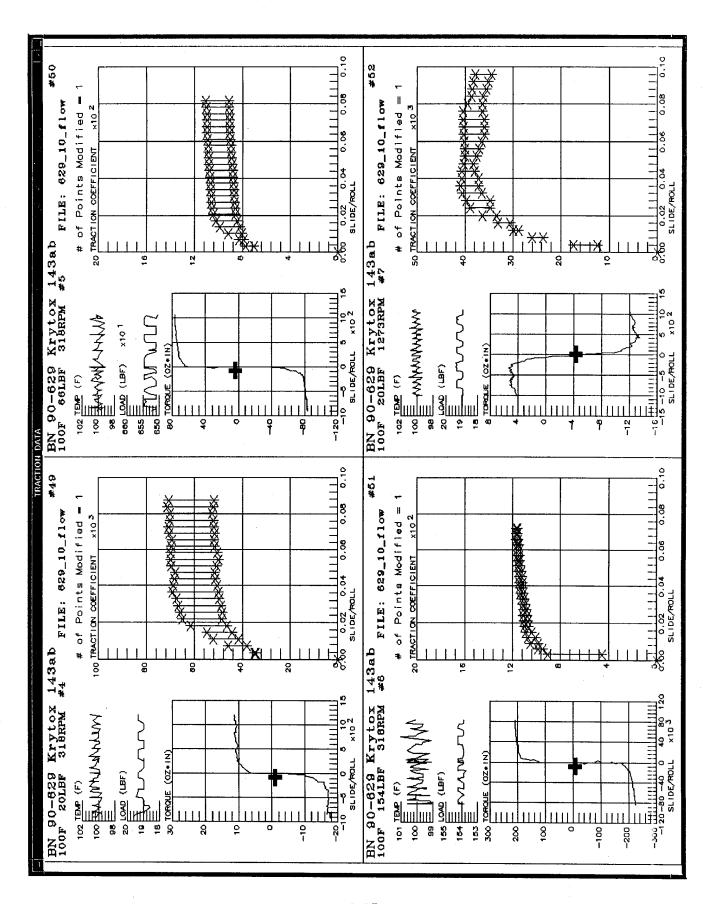


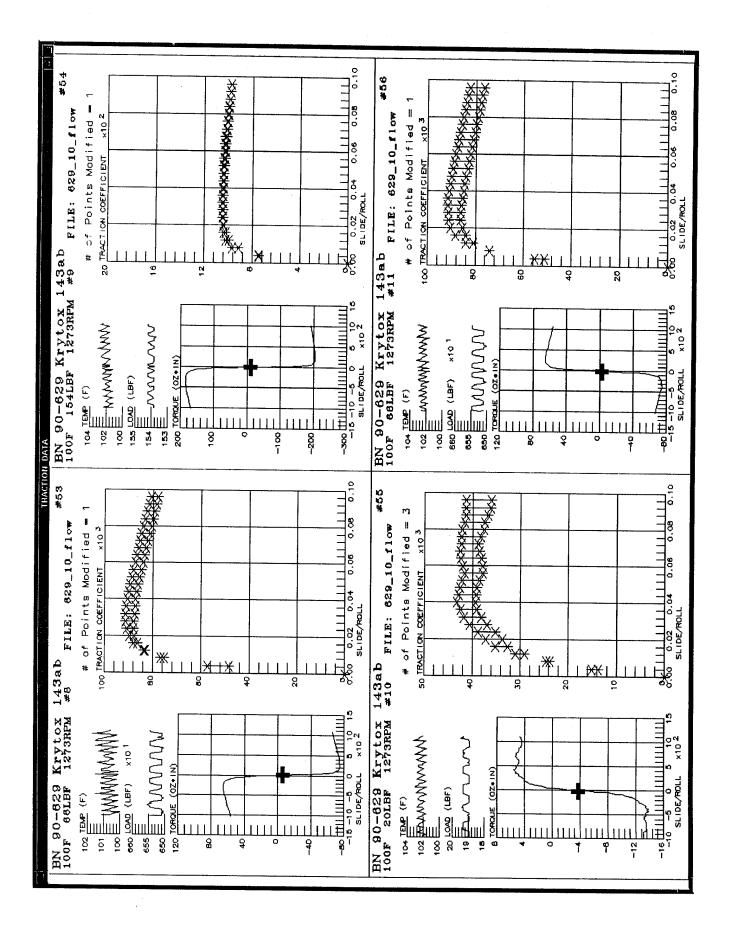


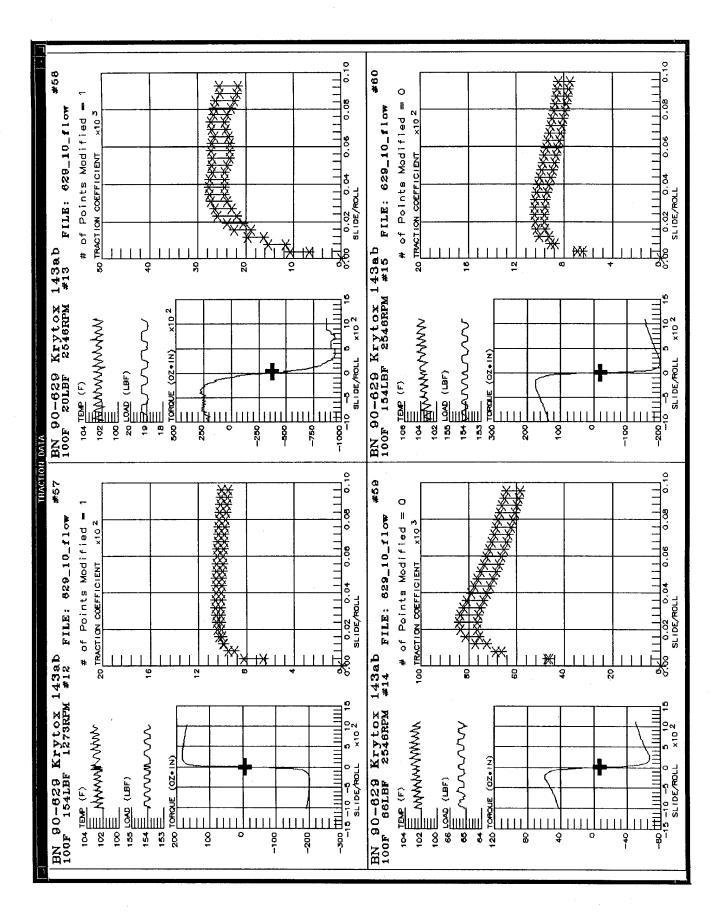


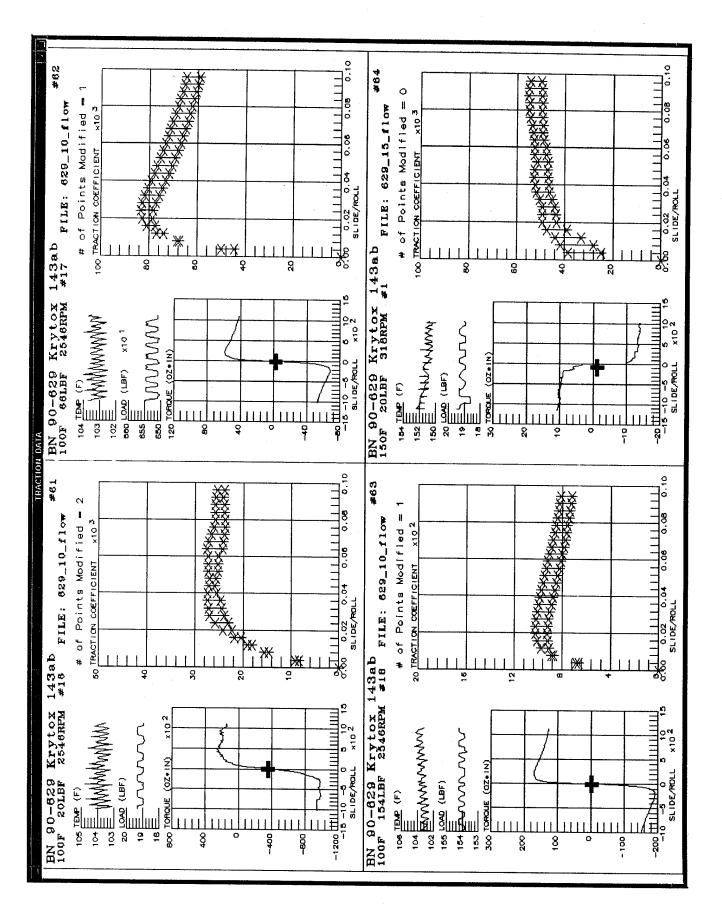


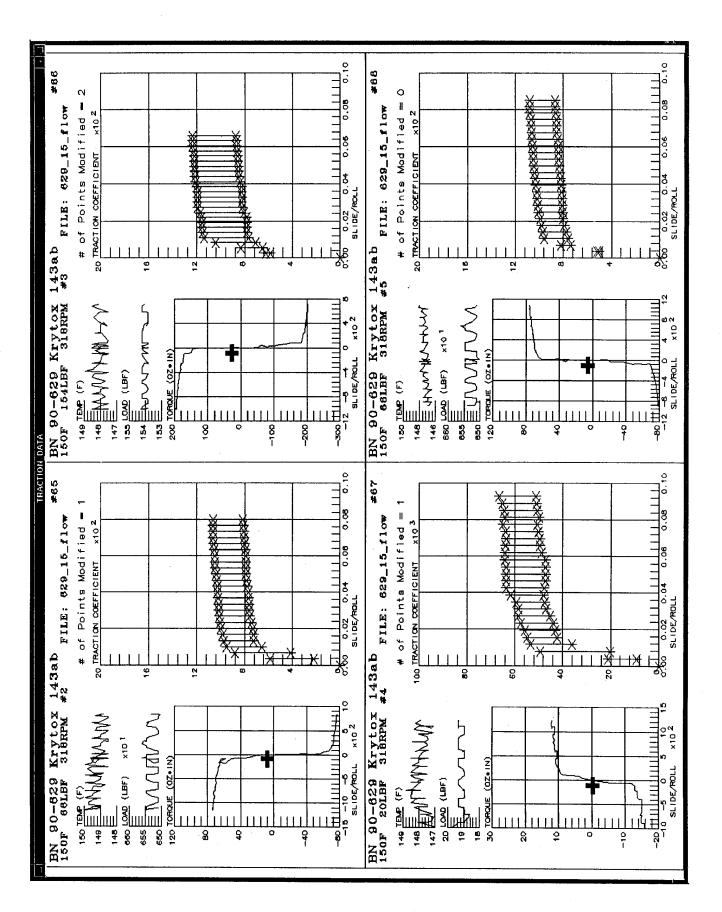


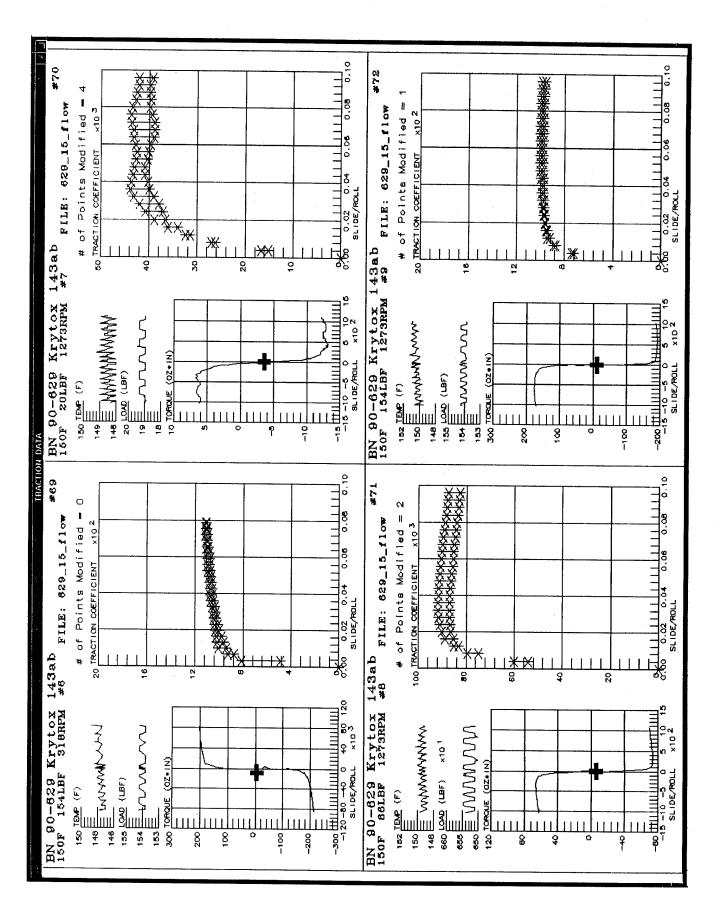


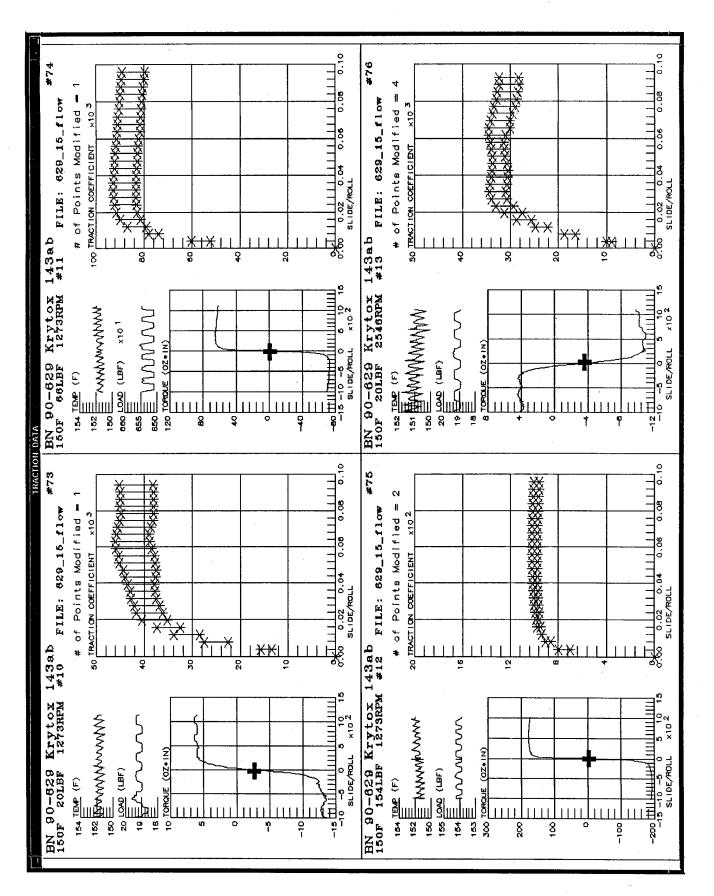


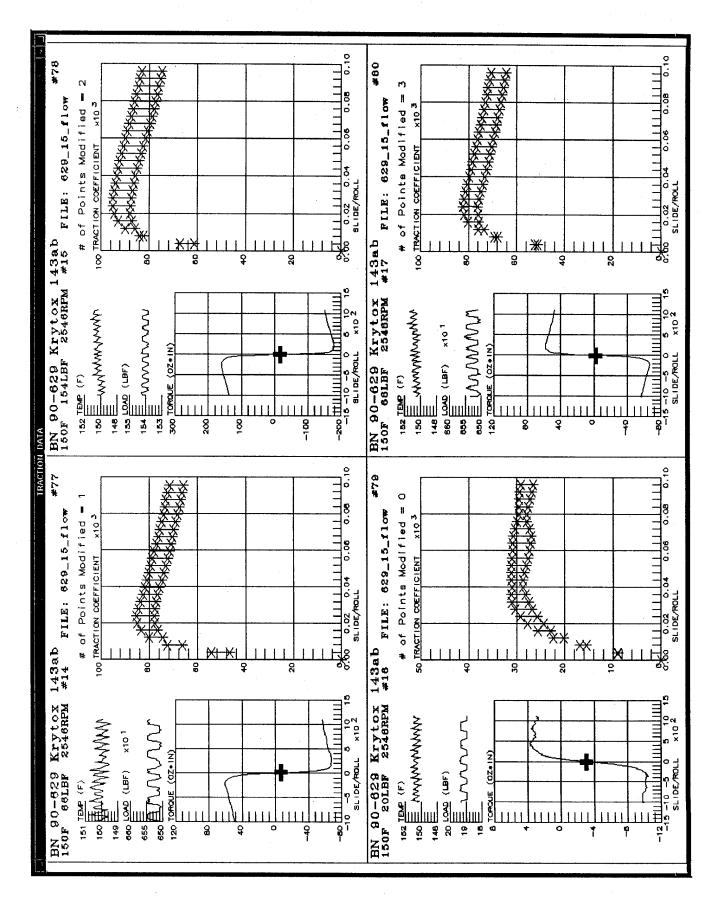


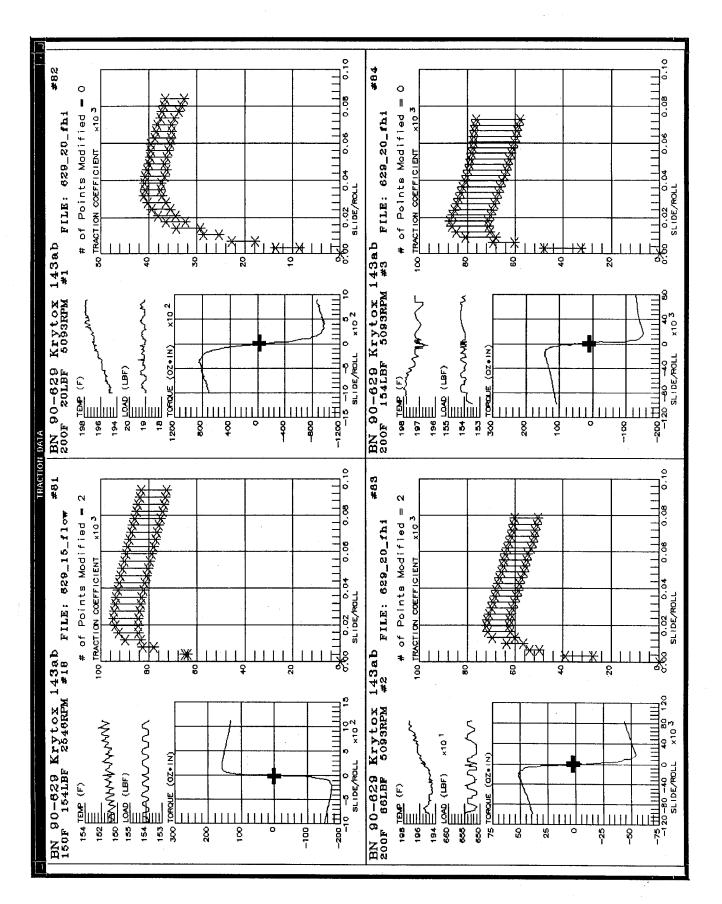


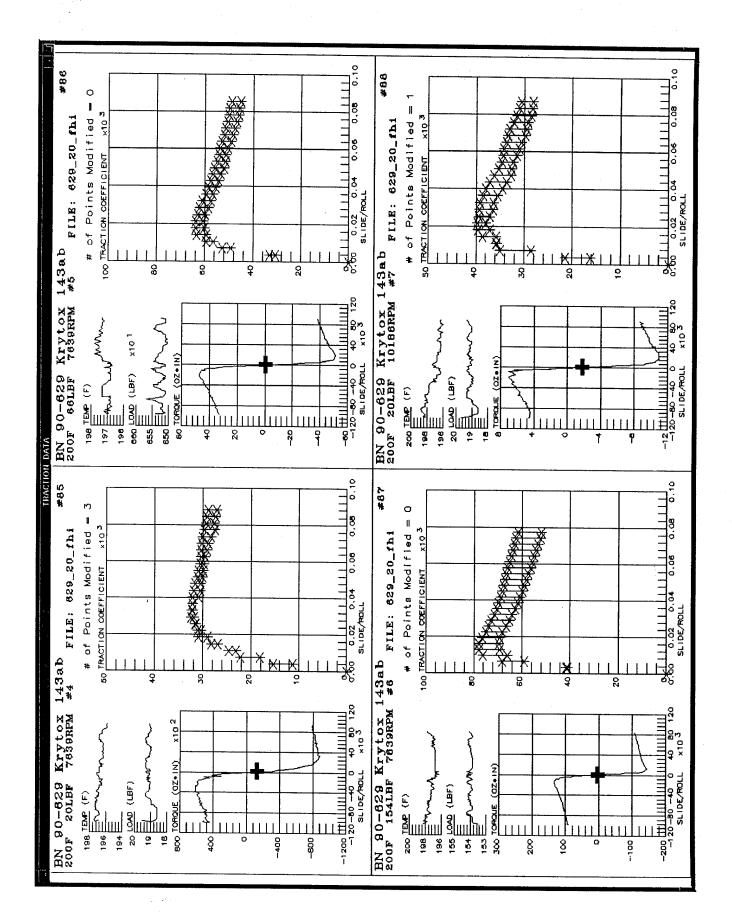


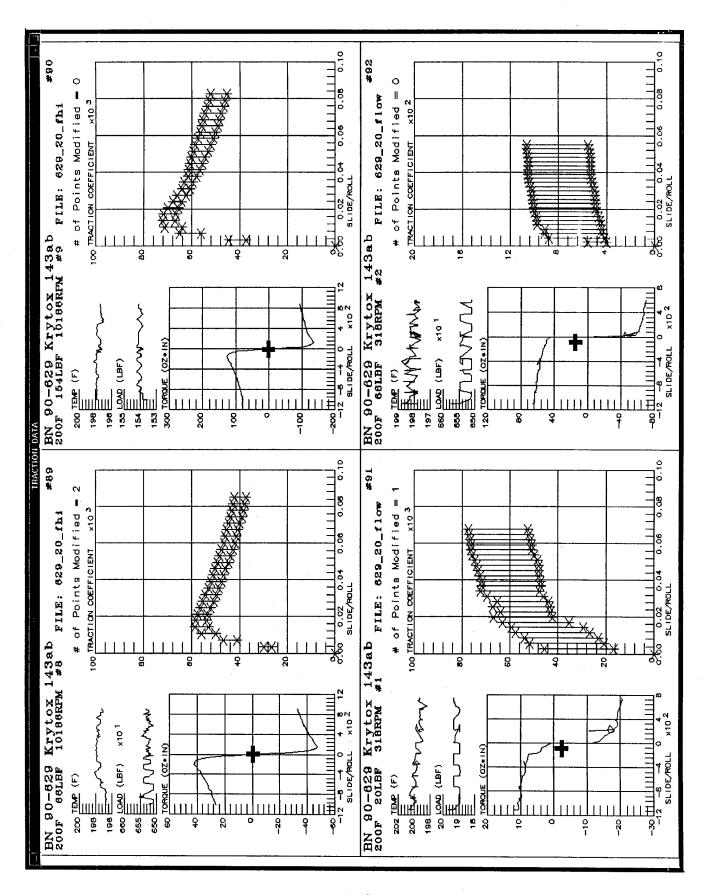


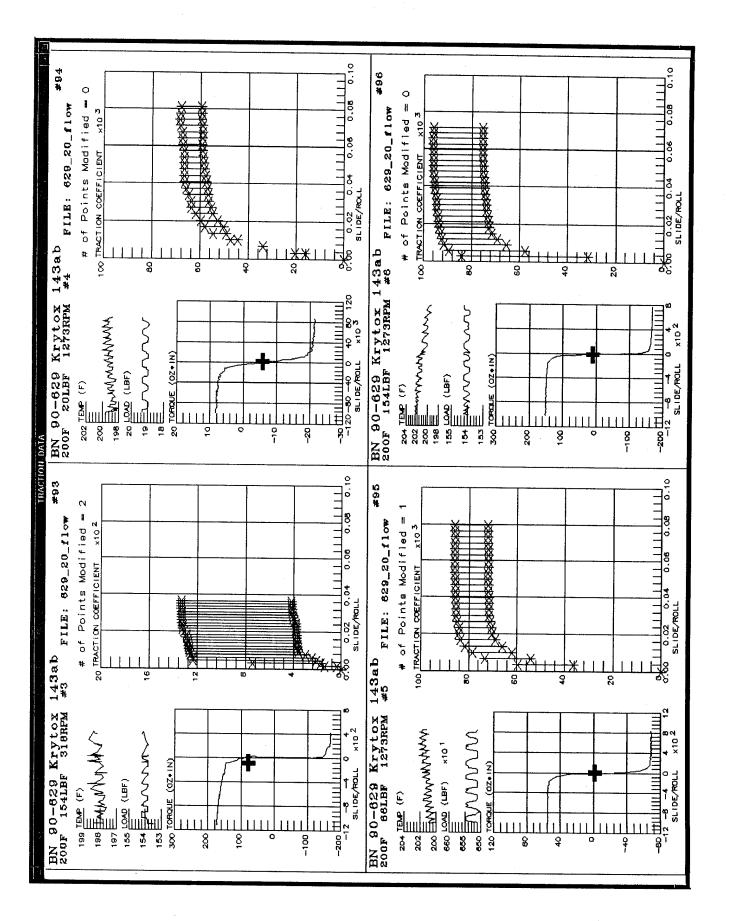


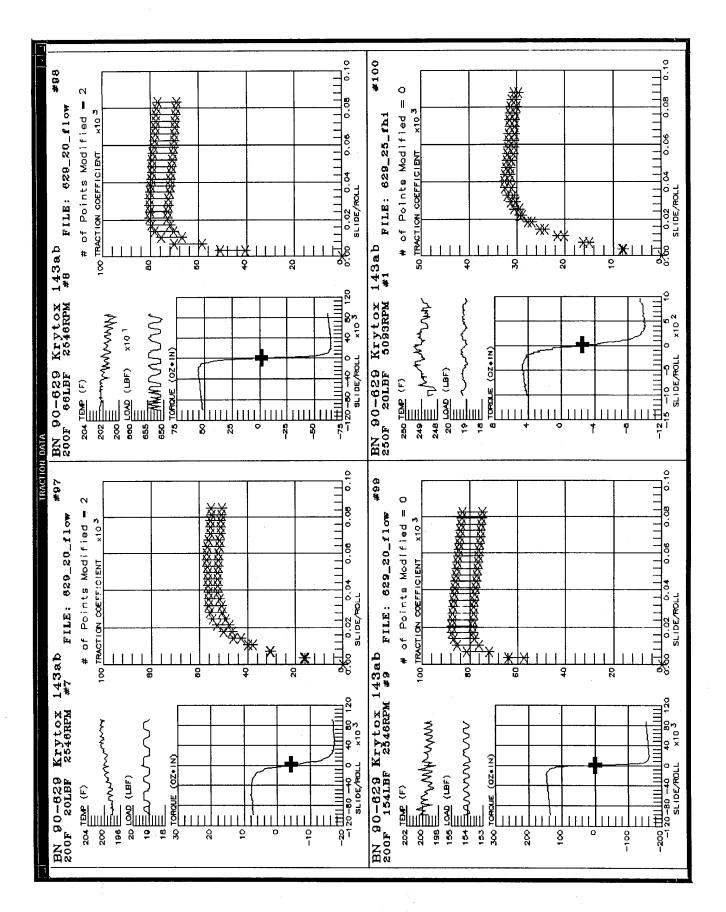


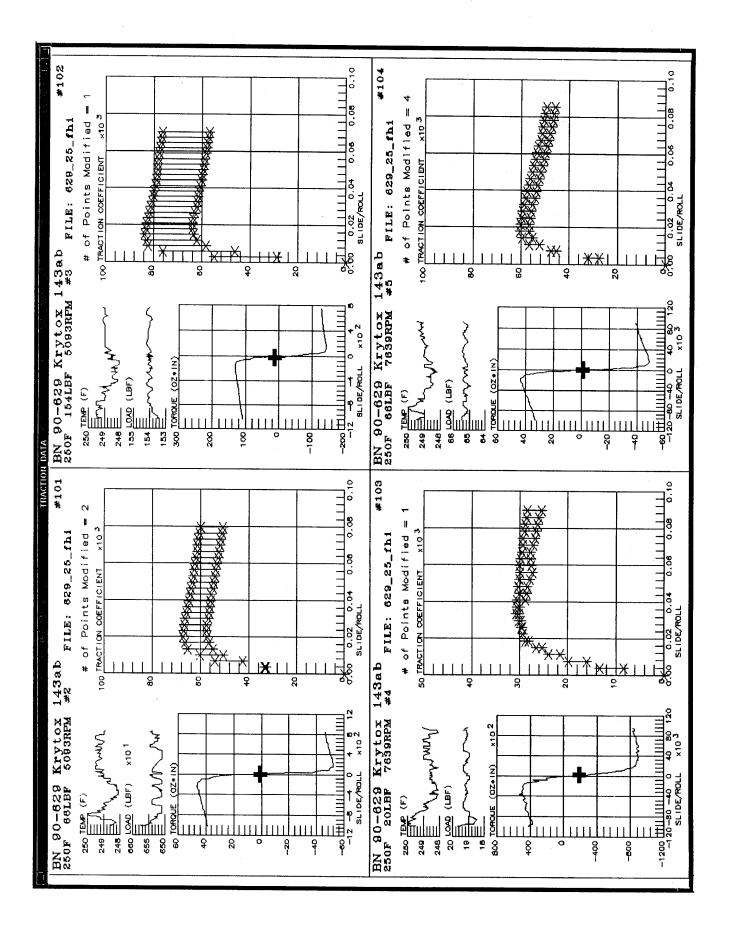


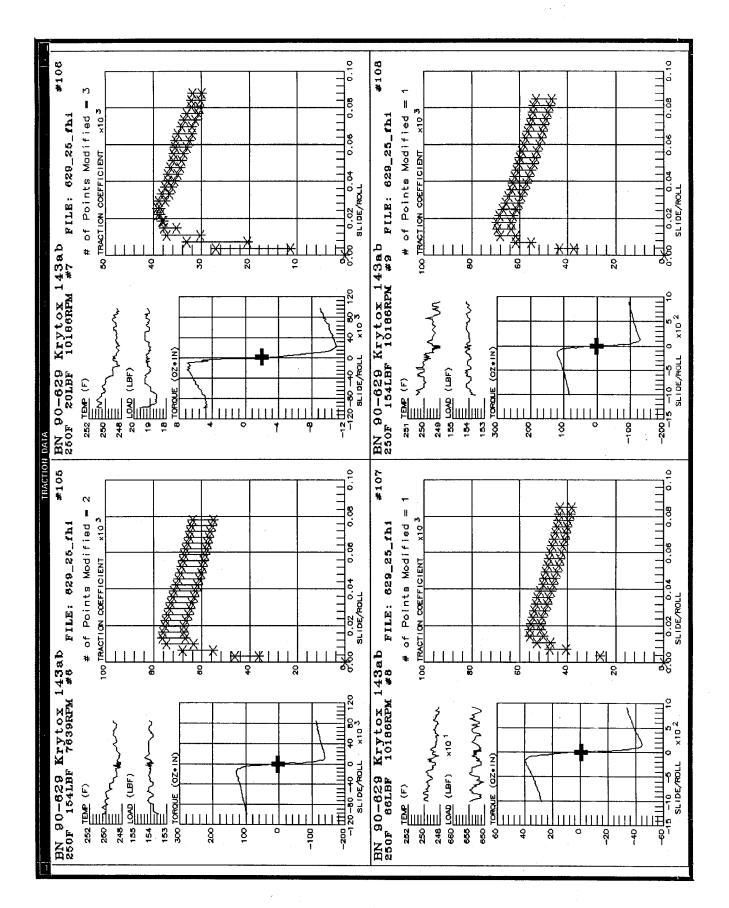


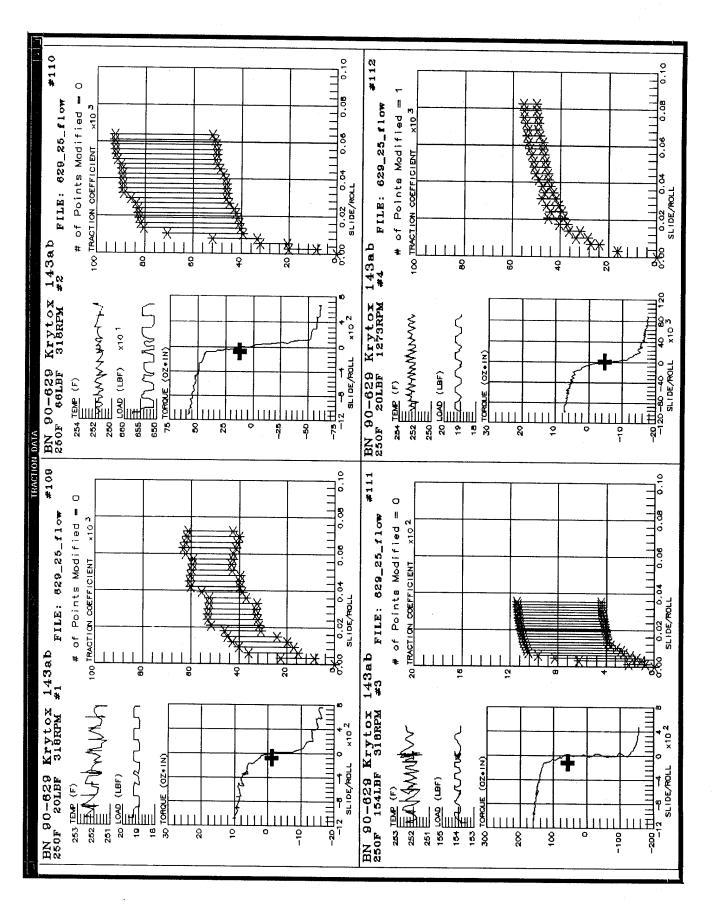


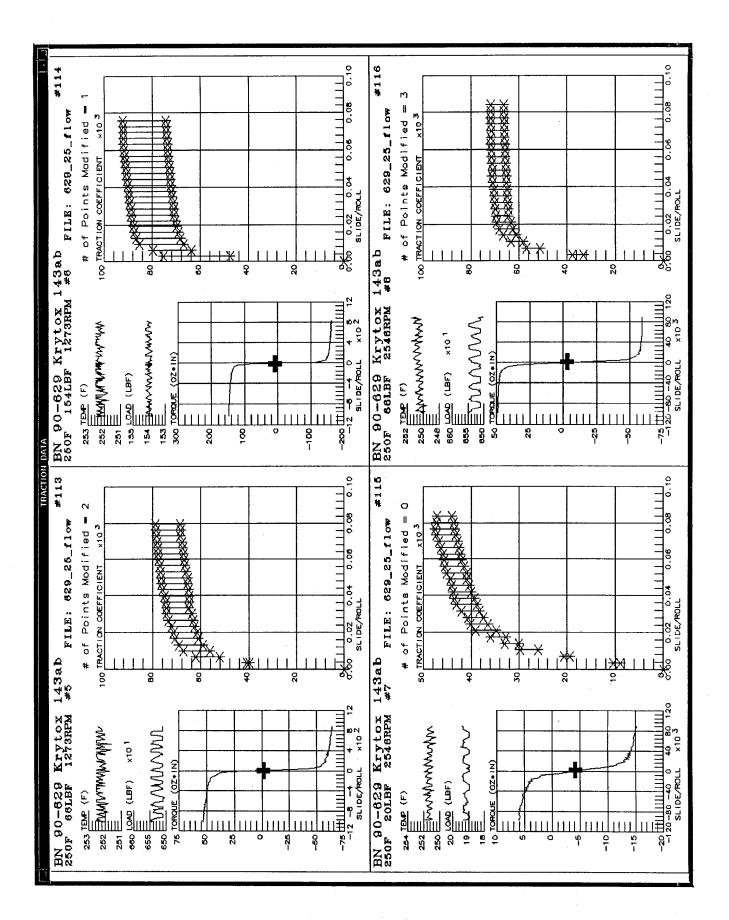


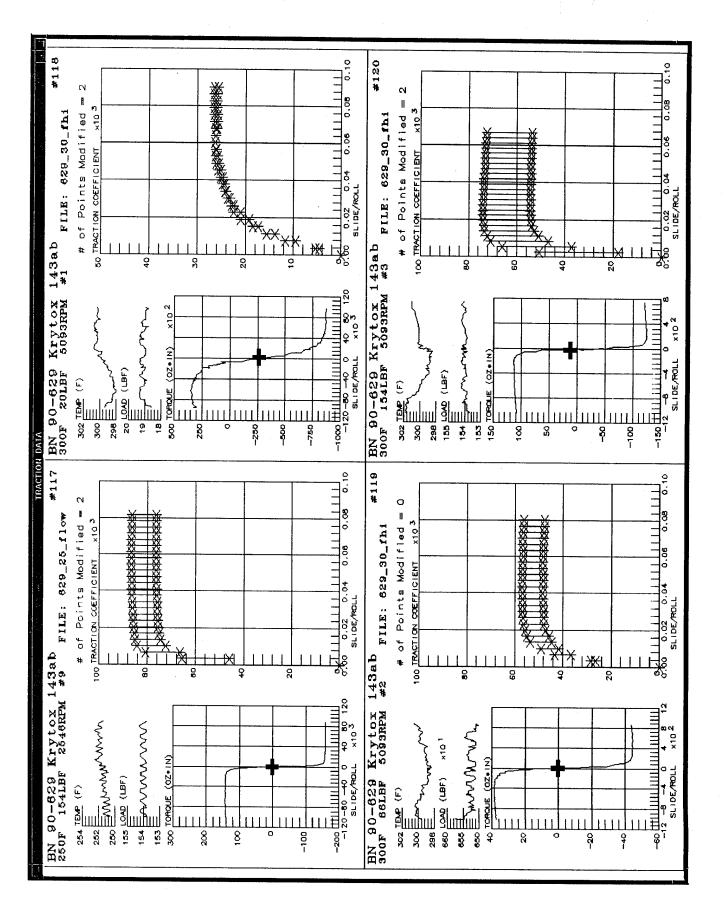


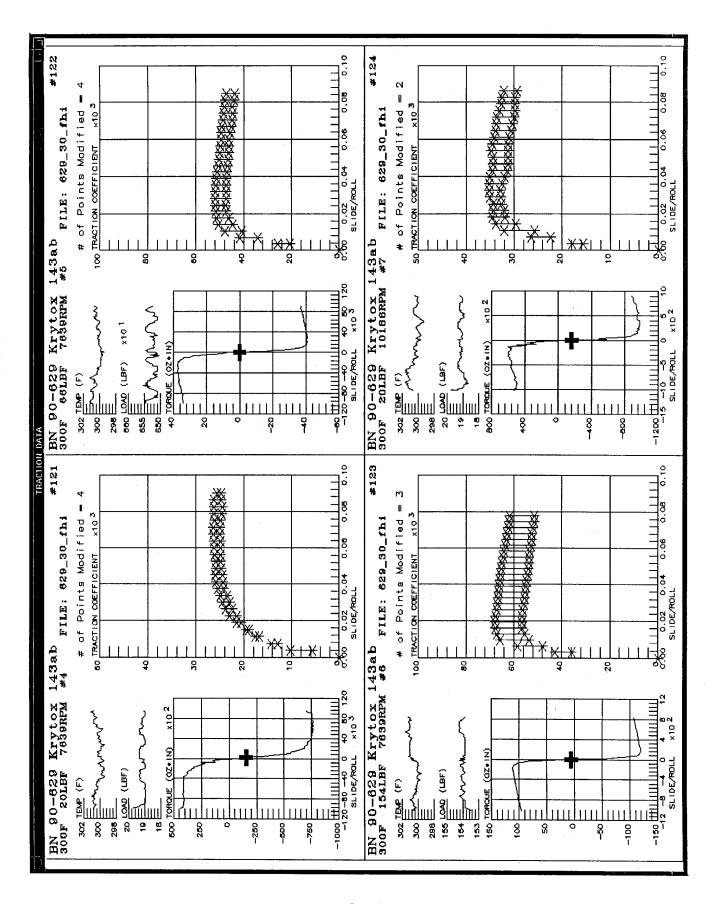


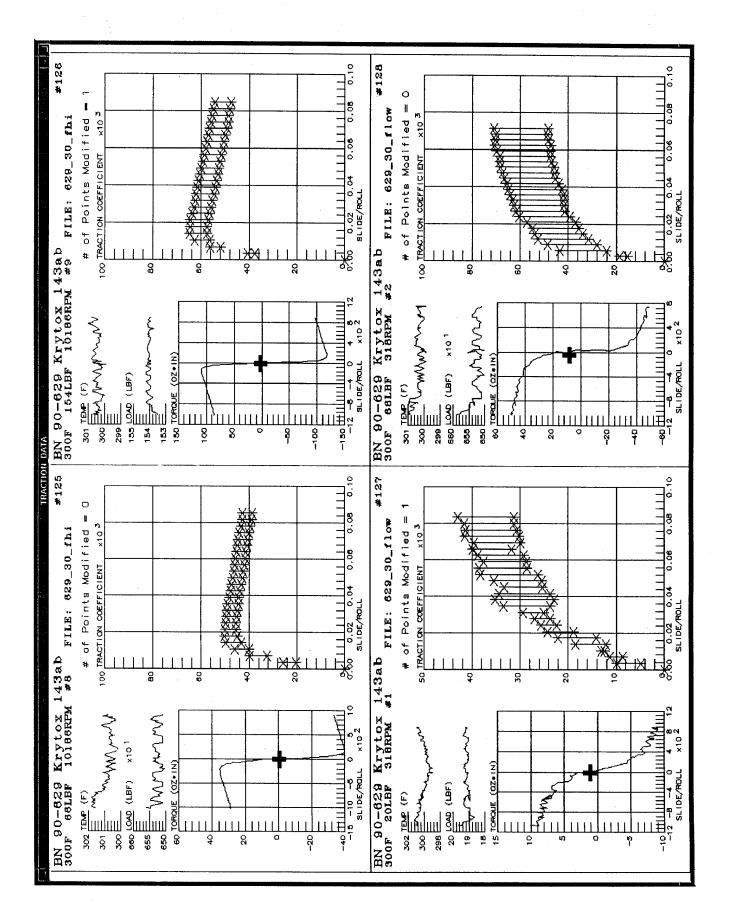


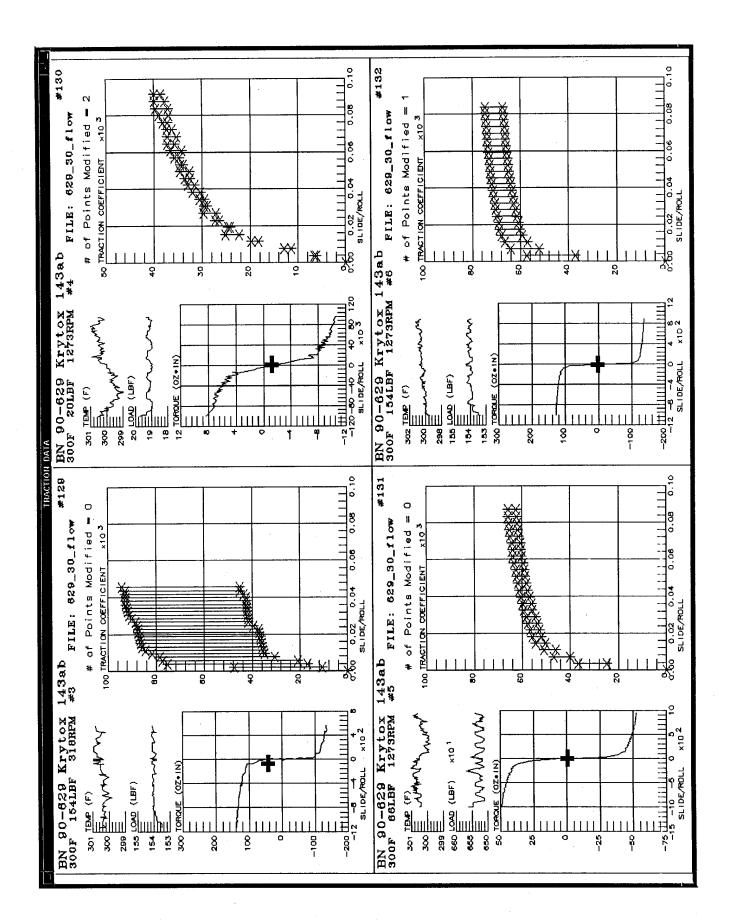


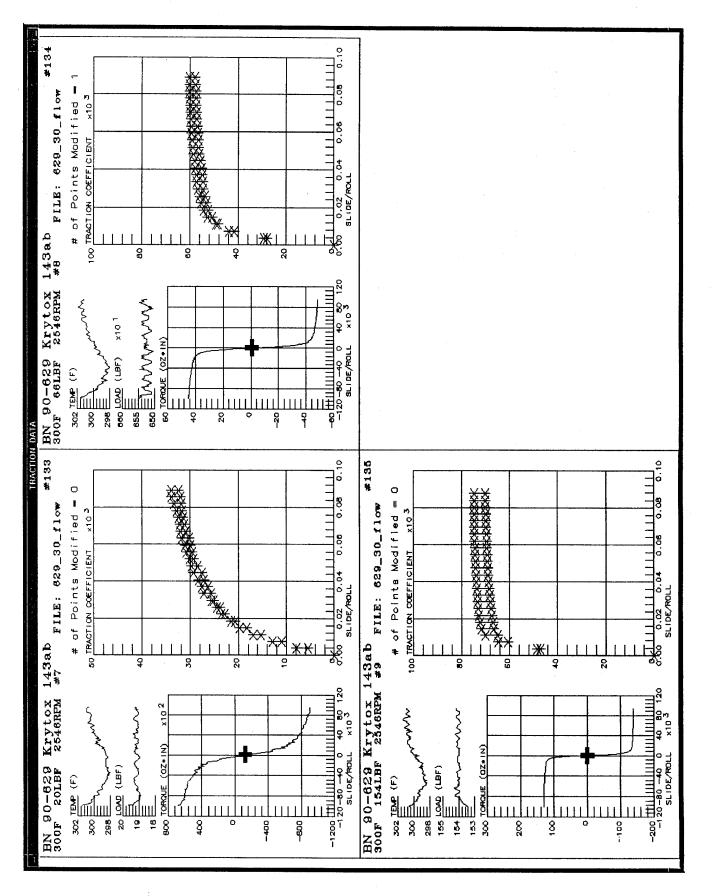


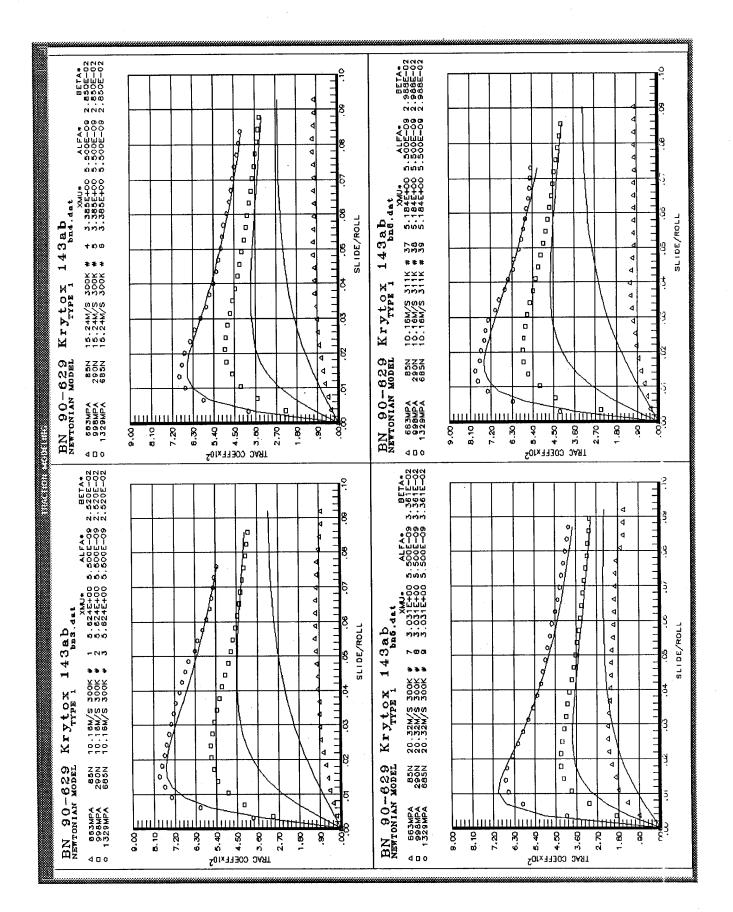


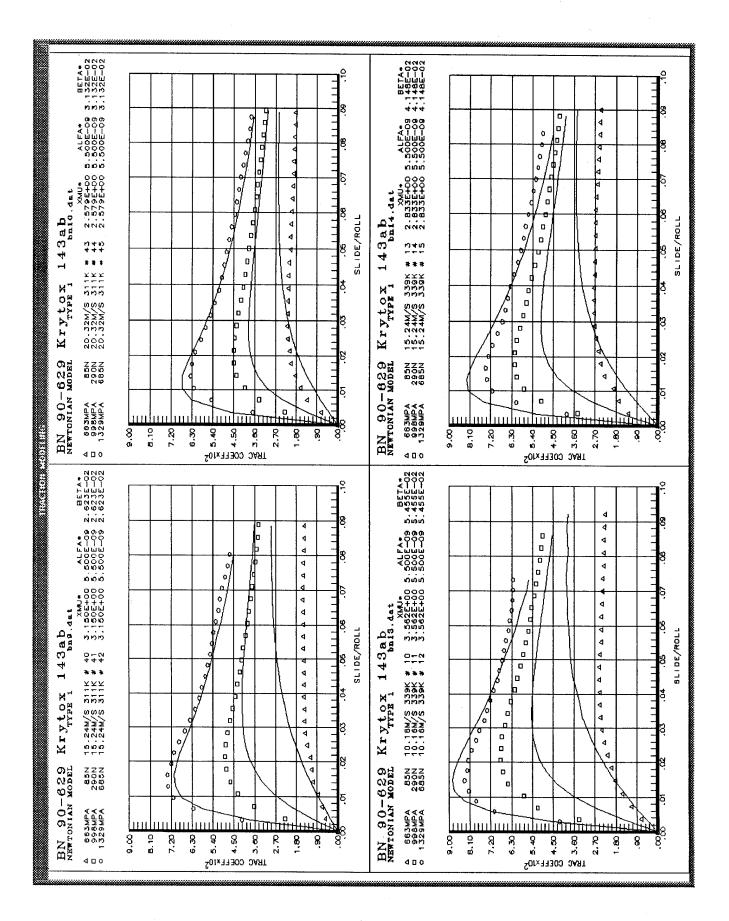


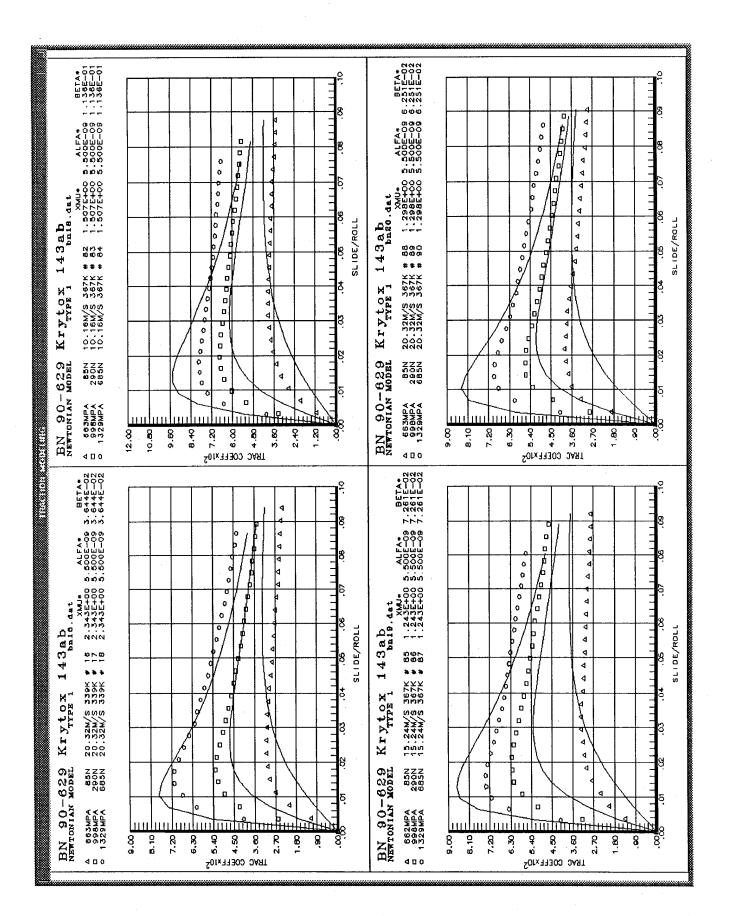


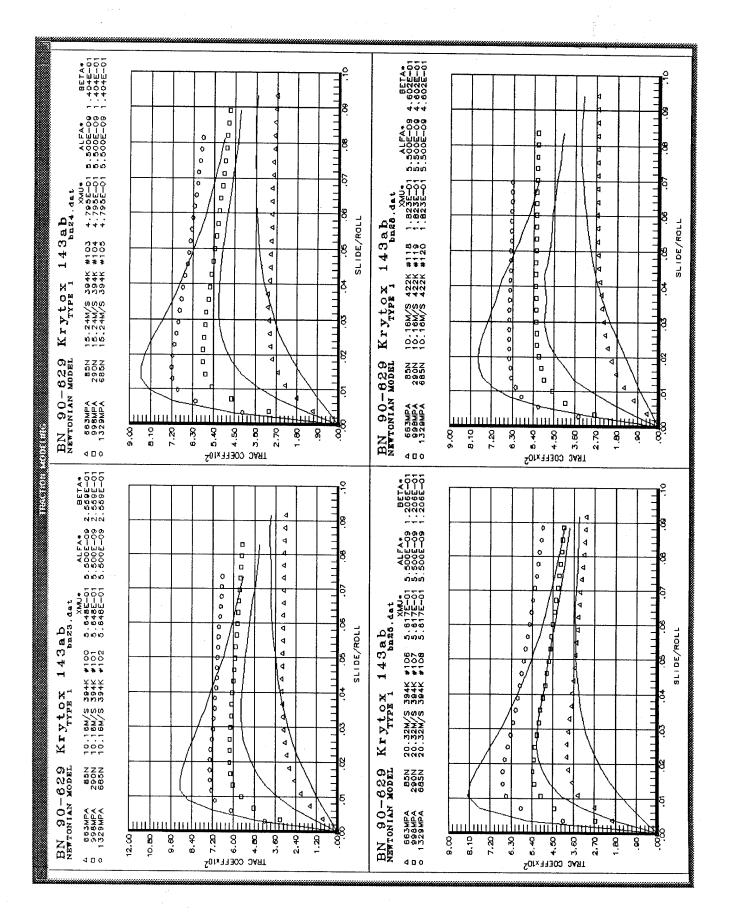


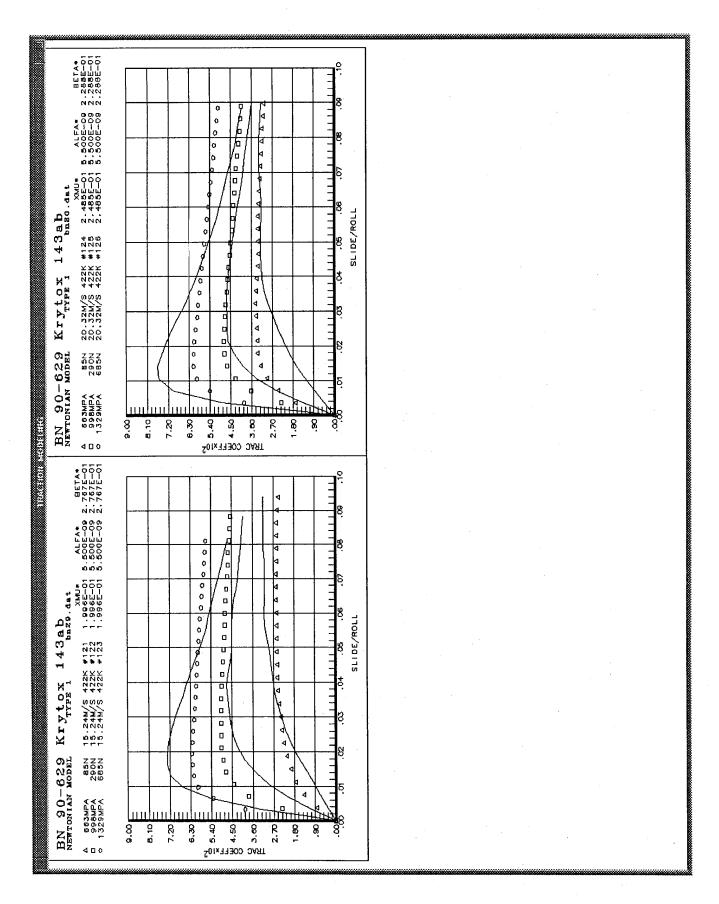












## 3. Traction Data Set B: 71-6 Krytox 143ac

 Data set name:
 CB 71-6
 Krytox 143 ac

 Rolling radii
 [Disks 1 & 2]
 (in):
 0.75
 0.75

 Crown radii
 [Disks 1 & 2]
 (in):
 0.91
 0.98

Number of data sets found = 486

	Temp F	Load lbf	Rpm1	Rpm2	RollRpm	Points	Dataset/Test #
1	80.00	0.43	4826.00	5334.00	5080.00	100	71-6-01x #1
Ž	80.00	1.42	4826.00	5334.00	5080.00	100	71-6-01x #2
3	80.00	3.34	4826.00	5334.00	5080.00	100	71-6-01x #3
4	80.00	11.29	4826.00	5334.00	5080.00	100	71-6-01x #4
5	80.00	26.84	4826.00	5334.00	5080.00	100	71-6-01x #5
6	80.00	52.40	4826.00	5334.00	5080.00	100	71-6-01x #6
7	80.00	90.53	4826.00	5334.00	5080.00	100	71-6-01x #7
8	80.00	0.43	7259.00	8019.00	7639.00	100	71-6-01x #8
9	80.00	1.42	7259.00	8019.00	7639.00	100	71-6-01x #9
10	80.00	3.34	7259.00	8019.00	7639.00	100	71-6-01x #10
11	80.00	11.29	7259.00	8019.00	7639.00	100	71-6-01x #11
12	80.00	26.84	7259.00	8019.00	7639.00	100	71-6-01x #12
13	80.00	52.40	7259.00	8019.00	7639.00	100	71-6-01x #13
14	80.00	90.53	7259.00	8019.00	7639.00	100	71-6-01x #14
15	80.00	0.43	9688.00	10708.00	10198.00	100	71-6-01x #15
16	80.00	1.42	9688.00	10708.00	10198.00	100	71-6-01x #16
17	80.00	3.34	9688.00	10708.00	10198.00	100	71-6-01x #17
18	80.00	11.29	9688.00	10708.00	10198.00	100	71-6-01x #18
19 20	80.00	26.84 52.40	9688.00 9688.00	10708.00 10708.00	10198.00 10198.00	100 100	71-6-01x #19 71-6-01x #20
21	80.00 80.00	90.53	9688.00	10708.00	10198.00	100	71-6-01x #20 71-6-01x #21
22	80.00	0.43	4826.00	5334.00	5080.00	100	71-6-01x #21 71-6-01y #1
23	80.00	1.42	4826.00	5334.00	5080.00	100	71-6-01y #1
24	80.00	3.34	4826.00	5334.00	5080.00	100	71-6-01y #2
25	80.00	11.29	4826.00	5334.00	5080.00	100	71-6-01y #4
26	80.00	26.84	4826.00	5334.00	5080.00	100	71-6-01y #4 71-6-01y #5
27	80.00	52.40	4826.00	5334.00	5080.00	100	71-6-01y #6
28	80.00	90.53	4826.00	5334.00	5080.00	100	71-6-01y #6
29	80.00	0.43	7259.00	8019.00	7639.00	100	71-6-01y #8
30	80.00	1.42	7259.00	8019.00	7639.00	100	71-6-01y #9
31	80.00	3.34	7259.00	8019.00	7639.00	100	71-6-01y #10
32	80.00	11.29	7259.00	8019.00	7639.00	100	71-6-01y #11
33	80.00	26.84	7259.00	8019.00	7639.00	100	71-6-01y #12
34	80.00	52.40	7259.00	8019.00	7639.00	100	71-6-01y #13
35	80.00	90.53	7259.00	8019.00	7639.00	100	71-6-01y #14
36	80.00	0.43	9688.00	10708.00	10198.00	100	71-6-01y #15
37	80.00	1.42	9688.00	10708.00	10198.00	100	71-6-01y #16
38	80.00	3.34	9688.00	10708.00	10198.00	100	71-6-01y #17
39	80.00	11.29	9688.00	10708.00	10198.00	100	71-6-01y #18
40	80.00	26.84	9688.00	10708.00	10198.00	100	71-6-01y #19
41	80.00	52.40	9688.00	10708.00	10198.00	100	71-6-01y #20
42	80.00	90.53	9688.00	10708.00	10198.00	100	71-6-01y #21
43	100.00	0.43	4826.00	5334.00	5080.00	100	71-6-02 #1
44	100.00	1.42	4826.00	5334.00	5080.00	100	71-6-02 #2
45	100.00	3.34	4826.00	5334.00	5080.00	100	71-6-02 #3
46	100.00	11.29	4826.00	5334.00	5080.00	100	71-6-02 #4
47	100.00	26.84	4826.00	5334.00	5080.00	100	71-6-02 #5
48 49	100.00	52.40 90.53	4826.00	5334.00	5080.00	100	71-6-02 #6
50	100.00 100.00	0.43	4826.00	5334.00	5080.00	100	71-6-02 #7
20	100.00	0.43	7259.00	8019.00	7639.00	100	71-6-02 #8

	Temp F	Load	Rpm1	Rpm2	RollRpm	Points	Dataset/Test #
51	100.00	1.42	7259.00	8019.00	7639.00	100	71-6-02 #9
52	100.00	3.34	7259.00	8019.00	7639.00	100	71-6-02 #10
53 54	100.00 100.00	11.29	7259.00 7259.00	8019.00	7639.00	100	71-6-02 #11
55	100.00	26.84 52.40	7259.00	8019.00 8019.00	7639.00 7639.00	100	71-6-02 #12 71-6-02 #13
56	100.00	90.53	7259.00	8019.00	7639.00	100 100	71-6-02 #13 71-6-02 #14
57	100.00	0.43	9688.00	10708.00	10198.00	100	71-6-02 #15
58	100.00	1.42	9688.00	10708.00	10198.00	100	71-6-02 #16
59	100.00	3.34	9688.00	10708.00	10198.00	100	71-6-02 #17
60 61	100.00 100.00	11.29 26.84	9688.00 9688.00	10708.00 10708.00	10198.00 10198.00	100 100	71-6-02 #18
62	100.00	52.40	9688.00	10708.00	10198.00	100	71-6-02 #19 71-6-02 #20
63	100.00	90.53	9688.00	10708.00	10198.00	100	71-6-02 #21
64	150.00	0.43	4826.00	5334.00	5080.00	100	71-6-03 #1
65	150.00	1.42	4826.00	5334.00	5080.00	100	71-6-03 #2
66 67	150.00 150.00	3.34 11.29	4826.00 4826.00	5334.00 5334.00	5080.00	100 100	71-6-03 #3
68	150.00	26.84	4826.00	5334.00	5080.00 5080.00	100	71-6-03 #4 71-6-03 #5
69	150.00	52.40	4826.00	5334.00	5080.00	100	71-6-03 #6
70	150.00	90.53	4826.00	5334.00	5080.00	100	71-6-03 #7
71	150.00	0.43	7259.00	8019.00	7639.00	100	71-6-03 #8
72 73	150.00 150.00	1.42 3.34	7259.00	8019.00	7639.00	100	71-6-03 #9
74	150.00	11.29	7259.00 7259.00	8019.00 8019.00	7639.00 7639.00	100 100	71-6-03 #10 71-6-03 #11
75	150.00	26.84	7259.00	8019.00	7639.00	100	71-6-03 #11
76	150.00	52.40	7259.00	8019.00	7639.00	100	71-6-03 #13
77	150.00	90.53	7259.00	8019.00	7639.00	100	71-6-03 #14
78 79	150.00 150.00	0.43 1.42	9688.00	10708.00	10198.00	100	71-6-03 #15
80	150.00	3.34	9688.00 9688.00	10708.00 10708.00	10198.00 10198.00	100 100	71-6-03 #16 71-6-03 #17
81	150.00	11.29	9688.00	10708.00	10198.00	100	71-6-03 #17
82	150.00	26.84	9688.00	10708.00	10198.00	100	71-6-03 #19
83	150.00	52.40	9688.00	10708.00	10198.00	100	71-6-03 #20
84 85	150.00 200.00	90.53 0.43	9688.00 4826.00	10708.00	10198.00	100	71-6-03 #21
86	200.00	1.42	4826.00	5334.00 5334.00	5080.00 5080.00	100 100	71-6-04 #1 71-6-04 #2
87	200.00	3.34	4826.00	5334.00	5080.00	100	71-6-04 #3
88	200.00	11.29	4826.00	5334.00	5080.00	100	71-6-04 #4
89 90	200.00 200.00	26.84 52.40	4826.00	5334.00	5080.00	100	71-6-04 #5
91	200.00	90.53	4826.00 4826.00	5334.00 5334.00	5080.00 5080.00	100 100	71-6-04 #6 71-6-04 #7
92	200.00	0.43	7259.00	8019.00	7639.00	100	71-6-04 #8
93	200.00	1.42	7259.00	8019.00	7639.00	100	71-6-04 #9
94	200.00	3.34	7259.00	8019.00	7639.00	100	71-6-04 #10
95 96	200.00 200.00	11.29 26.84	7259.00 7259.00	8019.00 8019.00	7639.00 7639.00	100 100	71-6-04 #11 71-6-04 #12
97	200.00	52.40	7259.00	8019.00	7639.00	100	71-6-04 #12
98	200.00	90.53	7259.00	8019.00	7639.00	100	71-6-04 #14
99	200.00	0.43	9688.00	10708.00	10198.00	100	71-6-04 #15
100 101	200.00 200.00	1.42 3.34	9688.00 9688.00	10708.00 10708.00	10198.00	100	71-6-04 #16
102	200.00	11.29	9688.00	10708.00	10198.00 10198.00	100 100	71-6-04 #17 71-6-04 #18
103	200.00	26.84	9688.00	10708.00	10198.00	100	71-6-04 #19
104	200.00	52.40	9688.00	10708.00	10198.00	100	71-6-04 #20
105	200.00	90.53	9688.00	10708.00	10198.00	100	71-6-04 #21
106 107	250.00 250.00	0.43 1.42	4826.00 4826.00	5334.00 5334.00	5080.00 5080.00	100 100	71-6-05 #1 71-6-05 #2
108	250.00	3.34	4826.00	5334.00	5080.00	100	71-6-05 #2
109	250.00	11.29	4826.00	5334.00	5080.00	100	71-6-05 #4
110	250.00 250.00	26.84	4826.00	5334.00	5080.00	100	71-6-05 #5
111 112	250.00 250.00	52.40 90.53	4826.00 4826.00	5334.00 5334.00	5080.00 5080.00	100 100	71-6-05 #6 71-6-05 #7
113	250.00	0.43	7259.00	8019.00	7639.00	100	71-6-05 #8
114	250.00	1.42	7259.00	8019.00	7639.00	100	71-6-05 #9
115	250.00	3.34	7259.00	8019.00	7639.00	100	71-6-05 #10
116 117	250.00 250.00	11.29 26.84	7259.00 7259.00	8019.00 8019.00	7639.00	100	71-6-05 #11
118	250.00	52.40	7259.00	8019.00	7639.00 7639.00	100 100	71-6-05 #12 71-6-05 #13
119	250.00	90.53	7259.00	8019.00	7639.00	100	71-6-05 #14
120	250.00	0.43	9688.00	10708.00	10198.00	100	71-6-05 #15

Data set: CB 71-6 Krytox 143 ac ....continued

	Temp F	Load lbf	Rpm1	Rpm2	RollRpm	Points	Dataset/Test #
121	250.00 250.00	1.42 3.34	9688.00 9688.00	10708.00 10708.00	10198.00 10198.00	100 100	71-6-05 #16 71-6-05 #17
122 123	250.00	11.29	9688.00	10708.00	10198.00	100	71-6-05 #17
124	250.00	26.84	9688.00	10708.00	10198.00	100	71-6-05 #19
125	250.00	52.40	9688.00	10708.00	10198.00	100	71-6-05 #20
126	250.00	90.53	9688.00	10708.00	10198.00	100	71-6-05 #21
127	250.00	52.40	4826.00	5334.00	5080.00	100	71-6-05x #1
128	250.00	90.53 52.40	4826.00	5334.00	5080.00	100	71-6-05x #2
129 130	250.00 250.00	90.53	7259.00 7259.00	8019.00 8019.00	7639.00 7639.00	100 100	71-6-05x #3 71-6-05x #4
131	250.00	52.40	9688.00	10708.00	10198.00	100	71-6-05x #5
132	250.00	90.53	9688.00	10708.00	10198.00	100	71-6-05x #6
133	300.00	0.43	4826.00	5334.00	5080.00	100	71-6-06 #1
134	300.00	1.42	4826.00	5334.00	5080.00	- 100	71-6-06 #2
135	300.00	3.34	4826.00	5334.00	5080.00	100	71-6-06 #3
136 137	300.00 300.00	11.29 26.84	4826.00 4826.00	5334.00 5334.00	5080.00 5080.00	100 100	71-6-06 #4 71-6-06 #5
138	300.00	52.40	4826.00	5334.00	5080.00	100	71-6-06 #6
139	300.00	90.53	4826.00	5334.00	5080.00	100	71-6-06 #7
140	300.00	0.43	7259.00	8019.00	7639.00	100	71-6-06 #8
141	300.00	1.42	7259.00	8019.00	7639.00	100	71-6-06 #9
142	300.00	3.34	7259.00	8019.00	7639.00 7639.00	100 100	71-6-06 #10 71-6-06 #11
143 144	300.00 300.00	11.29 26.84	7259.00 7259.00	8019.00 8019.00	7639.00	100	71-6-06 #11
145	300.00	52.40	7259.00	8019.00	7639.00	100	71-6-06 #13
146	300.00	90.53	7259.00	8019.00	7639.00	100	71-6-06 #14
147	300.00	0.43	9688.00	10708.00	10198.00	100	71-6-06 #15
148	300.00	1.42	9688.00	10708.00	10198.00	100	71-6-06 #16
149 150	300.00 300.00	3.34 11.29	9688.00 9688.00	10708.00 10708.00	10198.00 10198.00	100 100	71-6-06 #17 71-6-06 #18
151	300.00	26.84	9688.00	10708.00	10198.00	100	71-6-06 #19
152	300.00	52.40	9688.00	10708.00	10198.00	100	71-6-06 #20
153	300.00	90.53	9688.00	10708.00	10198.00	100	71-6-06 #21
154	80.00	0.43	72.00	80.00	76.00	100	71-6-07 #1
155	80.00	1.42	72.00	80.00	76.00	100	71-6-07 #2
156 157	80.00 80.00	3.34 11.36	72.00 72.00	80.00 80.00	76.00 76.00	100 100	71-6-07 #3 71-6-07 #4
158	80.00	26.84	72.00	80.00	76.00	100	71-6-07 #5
159	80.00	52.40	72.00	80.00	76.00	100	71-6-07 #6
160	80.00	88.40	72.00		76.00	100	71-6-07 #7
161 162	80.00 80.00	0.43 1.42	144.00 144.00	160.00 160.00	152.00 152.00	100 100	71-6-07 #8 71-6-07 #9
163	80.00	3.34	144.00	160.00	152.00	100	71-6-07 #10
164	80.00	11.36	144.00	160.00	152.00	100	71-6-07 #11
165	80.00	26.84	144.00	160.00	152.00	100	71-6-07 #12
166	80.00	52.40	144.00	160.00	152.00	100	71-6-07 #13
167 168	80.00	88.40 0.43	144.00 325.00	160.00	152.00 342.50	100 100	71-6-07 #14 71-6-07 #15
169	80.00 80.00	1.42	325.00	360.00 360.00	342.50	100	71-6-07 #15
170	80.00	3.34	325.00	360.00	342.50	100	71-6-07 #17
171	80.00	11,36	325.00	360.00	342.50	100	71-6-07 #18
172	80.00	26.84	325.00	360.00	342.50	100	71-6-07 #19
173	80.00	52.40	325.00	360.00	342.50	100	71-6-07 #20
174 175	80.00 80.00	88.40 0.43	325.00 617.00	360.00 682.00	342.50 649.50	100 100	71-6-07 #21 71-6-07 #22
176	80.00	1.42	617.00	682.00	649.50	100	71-6-07 #23
177	80.00	3.34	617.00	682.00	649.50	100	71-6-07 #24
178	80.00	11.36	617.00	682.00	649.50	100	71-6-07 #25
179	80.00	26.84	617.00	682.00	649.50	100	71-6-07 #26
180 181	80.00 80.00	52.40 88.40	617.00 617.00	682.00 682.00	649.50 649.50	100 100	71-6-07 #27 71-6-07 #28
182	80.00	0.43	1197.00	1323.00	1260.00	100	71-6-07 #28
183	80.00	1.42	1197.00	1323.00	1260.00	100	71-6-07 #30
184	80.00	3.34	1197.00	1323.00	1260.00	100	71-6-07 #31
185 186	80.00 80.00	11.36	1197.00 1197.00	1323.00	1260.00	100	71-6-07 #32
187	80.00	26.84 52.40	1197.00	1323.00 1323.00	1260.00 1260.00	100 100	71-6-07 #33 71-6-07 #34
188	80.00	88.40	1197.00	1323.00	1260.00	100	71-6-07 #35
189	80.00	0.43	2431.00	2687.00	2559.00	100	71-6-07 #36
190	80.00	1.42	2431.00	2687.00	2559.00	100	71-6-07 #37

Data set: CE 71-6 Krytox 143 ac ....continued

	Temp F	Load lbf	Rpm1	Rpm2	RollRpm	Points	Dataset/Test #
191 192 193	80.00 80.00 80.00	3.34 11.36 26.84	2431.00 2431.00 2431.00	2687.00 2687.00 2687.00	2559.00 2559.00 2559.00	100 100 100	71-6-07 #38 71-6-07 #39 71-6-07 #40
194 195 196	80.00 80.00 100.00	52.40 88.40 26.84	2431.00 2431.00 2000.00	2687.00 2687.00 2650.00	2559.00 2559.00 2325.00	100 100	71-6-07 #41 71-6-07 #42
197 198	100.00 100.00	90.53	2000.00	2650.00	2325.00	100 100 100	71-6-07x #1 71-6-07x #2 71-6-08 #1
199 200 201	100.00 100.00 100.00	1.42 3.34 11.36	72.00 72.00 72.00	80.00 80.00	76.00 76.00	100 100	71-6-08 #2 71-6-08 #3
202 203	100.00	26.84 52.40	72.00 72.00 72.00	80.00 80.00 80.00	76.00 76.00 76.00	100 100 100	71-6-08 #4 71-6-08 #5 71-6-08 #6
204 205 206	100.00 100.00 100.00	88.40 0.43 1.42	72.00 144.00	80.00 160.00	76.00 152.00	100 100	71-6-08 #7 71-6-08 #8
207 208	100.00	3.34 11.36	144.00 144.00 144.00	160.00 160.00 160.00	152.00 152.00 152.00	100 100 100	71-6-08 #9 71-6-08 #10 71-6-08 #11
209 210 211	100.00 100.00 100.00	26.84 52.40 88.40	144.00 144.00 144.00	160.00 160.00	152.00 152.00	100 100	71-6-08 #12 71-6-08 #13
212 213	100.00	0.43 1.42	325.00 325.00	160.00 360.00 360.00	152.00 342.50 342.50	100 100 100	71-6-08 #14 71-6-08 #15 71-6-08 #16
214 215 216	100.00 100.00 100.00	3.34 11.36 26.84	325.00 325.00 325.00	360.00 360.00	342.50 342.50	100 100	71-6-08 #17 71-6-08 #18
217 218	100.00 100.00	52.40 88.40	325.00 325.00	360.00 360.00 360.00	342.50 342.50 342.50	100 100 100	71-6-08 #19 71-6-08 #20 71-6-08 #21
219 220 221	100.00 100.00 100.00	0.43 1.42 3.34	617.00 617.00 617.00	682.00 682.00 682.00	649.50 649.50 649.50	100 100	71-6-08 #22 71-6-08 #23
222 223	100.00 100.00	11.36 26.84	617.00 617.00	682.00 682.00	649.50 649.50	100 100 100	71-6-08 #24 71-6-08 #25 71-6-08 #26
224 225 226	100.00 100.00 100.00	52.40 88.40 0.43	617.00 617.00 1197.00	682.00 682.00 1323.00	649.50 649.50 1260.00	100 100 100	71-6-08 #27 71-6-08 #28 71-6-08 #29
227 228 229	100.00 100.00 100.00	1.42 3.34 11.36	1197.00 1197.00 1197.00	1323.00 1323.00	1260.00 1260.00	100 100	71-6-08 #30 71-6-08 #31
230 231	100.00 100.00	26.84 52.40	1197.00 1197.00	1323.00 1323.00 1323.00	1260.00 1260.00 1260.00	100 100 100	71-6-08 #32 71-6-08 #33 71-6-08 #34
232 233 234	100.00 100.00 100.00	88.40 0.43 1.42	1197.00 2431.00 2431.00	1323.00 2687.00 2687.00	1260.00 2559.00 2559.00	100 100 100	71-6-08 #35 71-6-08 #36 71-6-08 #37
235 236	100.00 100.00	3.34 11.36	2431.00 2431.00	2687.00 2687.00	2559.00 2559.00	100 100	71-6-08 #38 71-6-08 #39
237 238 239	100.00 100.00 100.00	26.84 52.40 88.40	2431.00 2431.00 2431.00	2687.00 2687.00 2687.00	2559.00 2559.00 2559.00	100 100 100	71-6-08 #40 71-6-08 #41 71-6-08 #42
240 241 242	150.00 150.00 150.00	0.43 1.42 3.34	72.00 72.00 72.00	80.00 80.00	76.00 76.00	100 100	71-6-09 #1 71-6-09 #2
243 244	150.00 150.00	11.36 26.84	72.00 72.00	80.00 80.00 80.00	76.00 76.00 76.00	100 100 100	71-6-09 #3 71-6-09 #4 71-6-09 #5
245 246 247	150.00 150.00 150.00	52.40 88.40 0.43	72.00 72.00 144.00	80.00 80.00 160.00	76.00 76.00 152.00	100 100 100	71-6-09 #6 71-6-09 #7 71-6-09 #8
248 249 250	150.00 150.00 150.00	1.42 3.34	144.00 144.00	160.00 160.00	152.00 152.00	100 100	71-6-09 #9 71-6-09 #10
251 252	150.00 150.00	11.36 26.84 52.40	144.00 144.00 144.00	160.00 160.00 160.00	152.00 152.00 152.00	100 100 100	71-6-09 #11 71-6-09 #12 71-6-09 #13
253 254 255	150.00 150.00 150.00	88.40 0.43 1.42	144.00 325.00 325.00	160.00 360.00 360.00	152.00 342.50 342.50	100 100 100	71-6-09 #14 71-6-09 #15 71-6-09 #16
256 257 258	150.00 150.00 150.00	3.34 11.36 26.84	325.00 325.00	360.00 360.00	342.50 342.50	100 100	71-6-09 #17 71-6-09 #18
259 260	150.00 150.00	52.40 88.40	325.00 325.00 325.00	360.00 360.00 360.00	342.50 342.50 342.50	100 100 100	71-6-09 #19 71-6-09 #20 71-6-09 #21

Data set: CB 71-6 Krytox 143 ac ....continued

	Temp F	Load lbf	Rpm1	Rpm2	RollRpm	Points	Dataset/Test #
261	150.00	0.43	617.00	682.00	649.50	100	71-6-09 #22
262	150.00	1.42	617.00	682.00	649.50	100	71-6-09 #23
263	150.00	3.34	617.00	682.00	649.50	100	71-6-09 #24
264	150.00	11.36	617.00	682.00	649.50	100	71-6-09 #25
265	150.00	26.84	617.00	682.00	649.50	100	71-6-09 #26
266	150.00	52.40	617.00	682.00	649.50	100	71-6-09 #27
267	150.00	88.40	617.00	682.00	649.50	100	71-6-09 #28
268	150.00	0.43	1197.00	1323.00	1260.00	100	71-6-09 #29
269	150.00	1.42	1197.00	1323.00	1260.00	100	71-6-09 #30
270	150.00	3.34	1197.00	1323.00	1260.00	100	71-6-09 #31
271	150.00	11.36	1197.00	1323.00	1260.00	100	71-6-09 #32
272	150.00	26.84	1197.00	1323.00	1260.00	100	71-6-09 #33
273	150.00	52.40	1197.00	1323.00	1260.00	100	71-6-09 #34
274	150.00	88.40	1197.00	1323.00	1260.00	100	71-6-09 #35
275	150.00	0.43	2431.00	2687.00	2559.00	100	71-6-09 #36
276	150.00	1.42	2431.00	2687.00	2559.00	100	71-6-09 #37
277	150.00	3.34	2431.00	2687.00	2559.00	100	71-6-09 #38
278	150.00	11.36	2431.00	2687.00	2559.00	100	71-6-09 #39
279	150.00	26.84	2431.00	2687.00	2559.00	100	71-6-09 #40
280	150.00	52.40	2431.00	2687.00	2559.00	100	71-6-09 #41
281	150.00	88.40	2431.00	2687.00	2559.00	100	71-6-09 #42
282	200.00	0.43	72.00	80.00	76.00	100	71-6-10 #1
283	200.00	1.42	72.00	80.00	76.00	100	71-6-10 #2
284	200.00	3.34	72.00	80.00	76.00	100	71-6-10 #3
285	200.00	11.36	72.00	80.00	76.00	100	71-6-10 #4
286	200.00	26.84	72.00	80.00	76.00	100	71-6-10 #5
287	200.00	52.40	72.00	80.00	76.00	100	71-6-10 #6
288	200.00	88.40	72.00	80.00	76.00	100	71-6-10 #7
289	200.00	0.43	144.00	160.00	152.00	100	71-6-10 #8
290	200.00	1.42	144.00	160.00	152.00	100	71-6-10 #9
291	200.00	3.34	144.00	160.00	152.00	100	71-6-10 #10
292	200.00	11.36	144.00	160.00	152.00	100	71-6-10 #11
293	200.00	26.84	144.00	160.00	152.00	100	71-6-10 #12
294	200.00	52.40	144.00	160.00	152.00	100	71-6-10 #13
295	200.00	88.40	144.00	160.00	152.00	100	71-6-10 #14
296	200.00	0.43	325.00	360.00	342.50	100	71-6-10 #15
297	200.00	1.42	325.00	360.00	342.50	100	71-6-10 #16
298	200.00	3.34	325.00	360.00	342.50	100	71-6-10 #17
299	200.00	11.36	325.00	360.00	342.50	100	71-6-10 #18
300	200.00	26.84	325.00	360.00	342.50	100	71-6-10 #19
301	200.00	52.40	325.00	360.00	342.50	100	71-6-10 #20
302	200.00	88.40	325.00	360.00	342.50	100	71-6-10 #21
303	200.00	0.43	617.00	682.00	649.50	100	71-6-10 #22
304	200.00	1.42	617.00	682.00	649.50	100	71-6-10 #23
305	200.00	3.34	617.00	682.00	649.50	100	71-6-10 #24
306	200.00	11.36	617.00	682.00	649.50	100	71-6-10 #25
307	200.00	26.84	617.00	682.00	649.50	100	71-6-10 #26
308 309 310	200.00 200.00	52.40 88.40	617.00 617.00	682.00 682.00	649.50 649.50	100 100	71-6-10 #27 71-6-10 #28
311 312	200.00 200.00 200.00	0.43 1.42 3.34	1197.00 1197.00 1197.00	1323.00 1323.00 1323.00	1260.00 1260.00 1260.00	100 100 100	71-6-10 #29 71-6-10 #30 71-6-10 #31
313	200.00	11.36	1197.00	1323.00	1260.00	100	71-6-10 #32
314	200.00	26.84	1197.00	1323.00	1260.00	100	71-6-10 #33
315	200.00	52.40	1197.00	1323.00	1260.00	100	71-6-10 #34
316 317 318	200.00 200.00 200.00	88.40 0.43 1.42	1197.00 2431.00 2431.00	1323.00 2687.00 2687.00	1260.00 2559.00 2559.00	100 100	71-6-10 #35 71-6-10 #36
319 320	200.00	3.34 11.36	2431.00 2431.00	2687.00 2687.00	2559.00 2559.00	100 100 100	71-6-10 #37 71-6-10 #38 71-6-10 #39
321	200.00	26.84	2431.00	2687.00	2559.00	100	71-6-10 #40
322	200.00	52.40	2431.00	2687.00	2559.00	100	71-6-10 #41
323	200.00	88.40	2431.00	2687.00	2559.00	100	71-6-10 #42
324	250.00	0.43	72.00	80.00	76.00	100	71-6-11 #1
325	250.00	1.42	72.00	80.00	76.00	100	71-6-11 #2
326	250.00	3.34	72.00	80.00	76.00	100	71-6-11 #3
327	250.00	11.36	72.00	80.00	76.00	100	71-6-11 #4
328	250.00	26.84	72.00	80.00	76.00	100	71-6-11 #5
329	250.00	52.40	72.00	80.00	76.00	100	71-6-11 #6
330	250.00	88.40	72.00	80.00	76.00	100	71-6-11 #7

Data set: CB 71-6 Krytox 143 ac ....continued

	Temp F	Load lbf	Rpm1	Rpm2	RollRpm	Points	Dataset/Test #
331	250.00	0.43	144.00	160.00	152.00	100	71-6-11 #8
332 333	250.00 250.00	1.42 3.34	144.00	160.00	152.00	100	71-6-11 #9
334	250.00	11.36	144.00 144.00	160.00 160.00	152.00 152.00	100 100	71-6-11 #10
335	250.00	26.84	144.00	160.00	152.00	100	71-6-11 #11 71-6-11 #12
336	250.00	52.40	144.00	160.00	152.00	100	71-6-11 #13
337 338	250.00	88.40	144.00	160.00	152.00	100	71-6-11 #14
339	250.00 250.00	0.43 1.42	325.00 325.00	360.00 360.00	342.50	100	71-6-11 #15
340	250.00	3.34	325.00	360.00	342.50 342.50	100 100	71-6-11 #16 71-6-11 #17
341	250.00	11.36	325.00	360.00	342.50	100	71-6-11 #18
342	250.00	26.84	325.00	360.00	342.50	100	71-6-11 #19
343 344	250.00 250.00	52.40 88.40	325.00 325.00	360.00 360.00	342.50	100	71-6-11 #20
345	250.00	0.43	617.00	682.00	342.50 649.50	100 100	71-6-11 #21 71-6-11 #22
346	250.00	1.42	617.00	682.00	649.50	100	71-6-11 #23
347	250.00	3.34	617.00	682.00	649.50	100	71-6-11 #24
348 349	250.00 250.00	11.36 26.84	617.00 617.00	682.00	649.50	100	71-6-11 #25
350	250.00	52.40	617.00	682.00 682.00	649.50 649.50	100 100	71-6-11 #26 71-6-11 #27
351	250.00	88.40	617.00	682.00	649.50	100	71-6-11 #28
352	250.00	0.43	1197.00	1323.00	1260.00	100	71-6-11 #29
353 354	250.00 250.00	1.42 3.34	1197.00 1197.00	1323.00	1260.00	100	71-6-11 #30
355	250.00	11.36	1197.00	1323.00 1323.00	1260.00 1260.00	100 100	71-6-11 #31 71-6-11 #32
356	250.00	26.84	1197.00	1323.00	1260.00	100	71-6-11 #33
357 358	250.00	52.40	1197.00	1323.00	1260.00	100	71-6-11 #34
359	250.00 250.00	88.40 0.43	1197.00 2431.00	1323.00 2687.00	1260.00	100	71-6-11 #35
360	250.00	1.42	2431.00	2687.00	2559.00 2559.00	100 100	71-6-11 #36 71-6-11 #37
361	250.00	3.34	2431.00	2687.00	2559.00	100	71-6-11 #38
362 363	250.00	11.36	2431.00	2687.00	2559.00	100	71-6-11 #39
364	250.00 250.00	26.84 52.40	2431.00 2431.00	2687.00 2687.00	2559.00 2559.00	100 100	71-6-11 #40
365	250.00	88.40	2431.00	2687.00	2559.00	100	71-6-11 #41 71-6-11 #42
366	300.00	0.43	72.00	80.00	76.00	100	71-6-12 #1
367 368	300.00 300.00	1.42 3.34	72.00 72.00	80.00	76.00	100	71-6-12 #2
369	300.00	11.36	72.00	80.00 80.00	76.00 76.00	100 100	71-6-12 #3 71-6-12 #4
370	300.00	26.84	72.00	80.00	76.00	100	71-6-12 #5
371 372	300.00	52.40	72.00	80.00	76.00	100	71-6-12 #6
373	300.00 300.00	88.40 0.43	72.00 144.00	80.00 160.00	76.00 152.00	100 100	71-6-12 #7
374	300.00	1.42	144.00	160.00	152.00	100	71-6-12 #8 71-6-12 #9
375	300.00	3.34	144.00	160.00	152.00	100	71-6-12 #10
376 377	300.00 300.00	11.36	144.00	160.00	152.00	100	71-6-12 #11
378	300.00	26.84 52.40	144.00 144.00	160.00 160.00	152.00 152.00	100 100	71-6-12 #12 71-6-12 #13
379	300.00	88.40	144.00	160.00	152.00	100	71-6-12 #14
380	300.00	0.43	325.00	360.00	342.50	100	71-6-12 #15
381 382	300.00 300.00	1.42 3.34	325.00 325.00	360.00 360.00	342.50 342.50	100	71-6-12 #16
383	300.00	11.36	325.00	360.00	342.50	100 100	71-6-12 #17 71-6-12 #18
384	300.00	26.84	325.00	360.00	342.50	100	71-6-12 #19
385 386	300.00 300.00	52.40	325.00	360.00	342.50	100	71-6-12 #20
387	300.00	88.40 0.43	325.00 325.00	360.00 360.00	342.50 342.50	2 100	71-6-12 #21 71-6-12x #1
388	300.00	1.42	325.00	360.00	342.50	100	71-6-12x #1
389	300.00	3.34	325.00	360.00	342.50	100	71-6-12x #3
390 391	300.00 300.00	11.36 26.84	325.00 325.00	360.00 360.00	342.50 342.50	100	71-6-12x #4
392	300.00	52.40	325.00	360.00	342.50	100 100	71-6-12x #5 71-6-12x #6
393	300.00	88.40	325.00	360.00	342.50	100	71-6-12x #7
394 395	300.00 300.00	0.43 1.42	617.00 617.00	682.00	649.50	100	71-6-12x #8
396	300.00	3.34	617.00	682.00 682.00	649.50 649.50	100 100	71-6-12x #9 71-6-12x #10
397	300.00	11.36	617.00	682.00	649.50	100	71-6-12x #10 71-6-12x #11
398	300.00	26.84	617.00	682.00	649.50	100	71-6-12x #12
399 400	300.00 300.00	52.40 88.40	617.00 617.00	682.00 682.00	649.50 649.50	100	71-6-12x #13
			000	001.00	047.30	100	71-6-12x #14

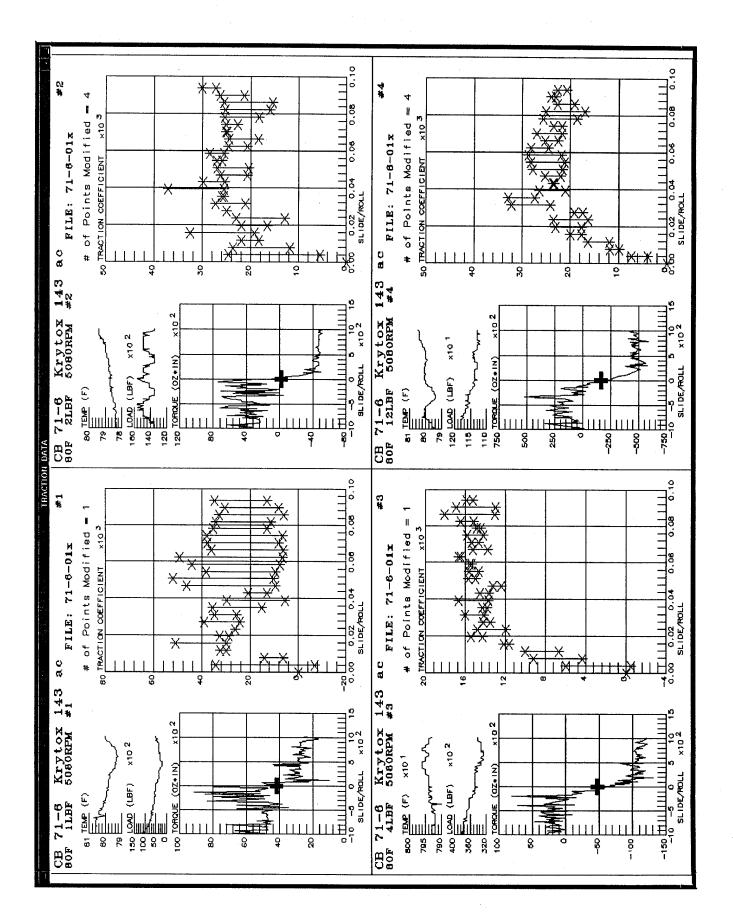
Data set: CB 71-6 Krytox 143 ac ....continued

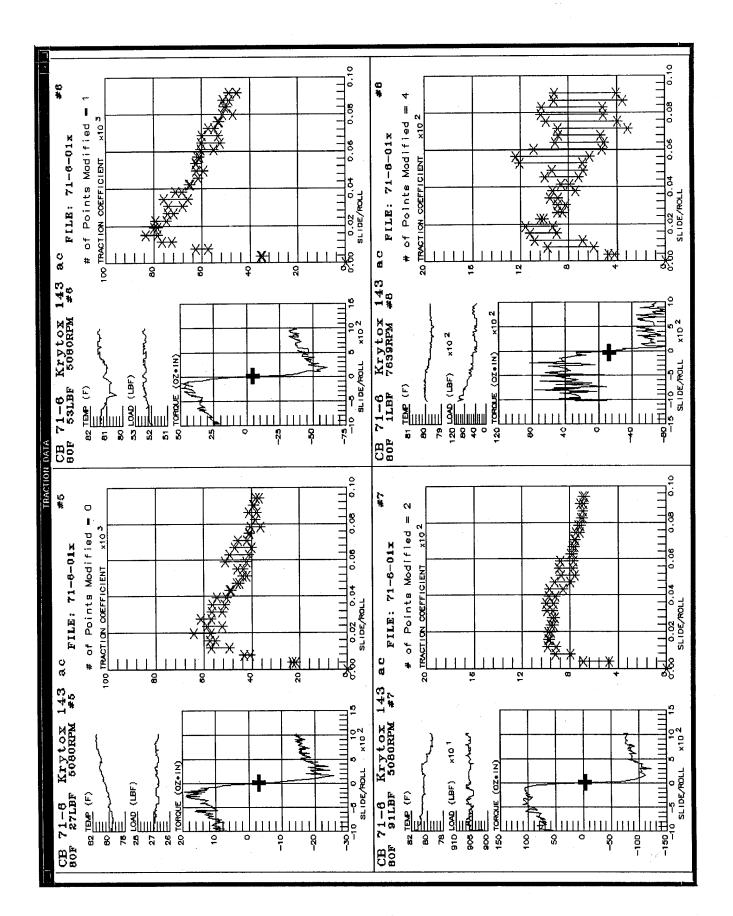
	Temp F	Load lbf	Rpm1	Rpm2	RollRpm	Points	Dataset/Test #
401	300.00	0.43	1197.00	1323.00	1260.00	100	71-6-12x #15
402	300.00	1.42	1197.00	1323.00	1260.00	100	71-6-12x #16
403	300.00	3.34	1197.00	1323.00	1260.00	100	71-6-12x #17
404 405	300.00 300.00	11.36 26.84	1197.00 1197.00	1323.00 1323.00	1260.00 1260.00	100 100	71-6-12x #18 71-6-12x #19
406	300.00	52.40	1197.00	1323.00	1260.00	100	71-6-12x #19 71-6-12x #20
407	300.00	88.40	1197.00	1323.00	1260.00	100	71-6-12x #21
408	300.00	0.43	2431.00	2687.00	2559.00	100	71-6-12x #22
409 410	300.00 300.00	1.42 3.34	2431.00 2431.00	2687.00 2687.00	2559.00 2559.00	100 100	71-6-12x #23 71-6-12x #24
411	300.00	11.36	2431.00	2687.00	2559.00	100	71-6-12x #24 71-6-12x #25
412	300.00	26.84	2431.00	2687.00	2559.00	100	71-6-12x #26
413	300.00	52.40	2431.00	2687.00	2559.00	100	71-6-12x #27
414 415	300.00 80.00	88.40 0.43	2431.00 4826.00	2687.00 5334.00	2559.00 5080.00	100 100	71-6-12x #28 71-6-sl #1
416	80.00	1.42	4826.00	5334.00	5080.00	100	71-6-st #1
417	80.00	0.43	7259.00	8019.00	7639.00	100	71-6-sl #3
418	80.00	1.42	7259.00	8019.00	7639.00	100	71-6-sl #4
419	80.00	0.43	9688.00	10708.00	10198.00	100	71-6-sl #5
420 421	80.00 100.00	1.42 0.43	9688.00 4826.00	10708.00 5334.00	10198.00 5080.00	100 100	71-6-sl #6 71-6-sl #7
422	100.00	1.42	4826.00	5334.00	5080.00	100	71-6-st #8
423	100.00	0.43	7259.00	8019.00	7639.00	100	71-6-sl #9
424	100.00	1.42	7259.00	8019.00	7639.00	100	71-6-sl #10
425 426	100.00	0.43 1.42	9688.00	10708.00	10198.00	100 100	71-6-sl #11
427	100.00 150.00	0.43	9688.00 4826.00	10708.00 5334.00	10198.00 5080.00	100	71-6-sl #12 71-6-sl #13
428	150.00	1.42	4826.00	5334.00	5080.00	100	71-6-sl #14
429	150.00	0.43	7259.00	8019.00	7639.00	100	71-6-sl #15
430	150.00	1.42	7259.00	8019.00	7639.00	100	71-6-sl #16
431 432	150.00 150.00	0.43 1.42	9688.00 9688.00	10708.00 10708.00	10198.00 10198.00	100 100	71-6-sl #17 71-6-sl #18
433	200.00	0.43	4826.00	5334.00	5080.00	100	71-6-sl #19
434	200.00	1.42	4826.00	5334.00	5080.00	100	71-6-sl #20
435	200.00	0.43	7259.00	8019.00	7639.00	100	71-6-sl #21
436 437	200.00 200.00	1.42 0.43	7259.00 9688.00	8019.00 10708.00	7639.00 10198.00	100 100	71-6-sl #22 71-6-sl #23
438	200.00	1.42	9688.00	10708.00	10198.00	100	71-6-sl #24
439	250.00	0.43	4826.00	5334.00	5080.00	100	71-6-sl #25
440	250.00	1.42	4826.00	5334.00	5080.00	100	71-6-sl #26
441 442	250.00 250.00	0.43 1.42	7259.00 7259.00	8019.00 8019.00	7639.00 7639.00	100 100	71-6-sl #27 71-6-sl #28
443	250.00	0.43	9688.00	10708.00	10198.00	100	71-6-sl #29
444	250.00	1.42	9688.00	10708.00	10198.00	100	71-6-sl #30
445	300.00	0.43	4826.00	5334.00	5080.00	100	71-6-sl #31
446 447	300.00 300.00	1.42 0.43	4826.00 7259.00	5334.00 8019.00	5080.00	100 100	71-6-sl #32 71-6-sl #33
448	300.00	1.42	7259.00	8019.00	7639.00 7639.00	100	71-6-st #33 71-6-st #34
449	300.00	0.43	9688.00	10708.00	10198.00	100	71-6-sl #35
450	300.00	1.42	9688.00	10708.00	10198.00	100	71-6-sl #36
451 452	80.00 80.00	0.85 2.06	4826.00 4826.00	5334.00 5334.00	5080.00 5080.00	100 100	71-6-slx #1 71-6-slx #2
453	80.00	0.85	7259.00	8019.00	7639.00	100	71-6-stx #2 71-6-stx #3
454	80.00	2.06	7259.00	8019.00	7639.00	100	71-6-slx #4
455	80.00	0.85	9688.00	10708.00	10198.00	100	71-6-slx #5
456 457	80.00 100.00	2.06 0.85	9688.00 4826.00	10708.00 5334.00	10198.00 5080.00	100 100	71-6-slx #6 71-6-slx #7
458	100.00	2.06	4826.00	5334.00	5080.00	100	71-6-stx #7 71-6-stx #8
459	100.00	0.85	7259.00	8019.00	7639.00	100	71-6-slx #9
460	100.00	2.06	7259.00	8019.00	7639.00	100	71-6-slx #10
461 462	100.00 100.00	0.85 2.06	9688.00 9688.00	10708.00 10708.00	10198.00 10198.00	100 100	71-6-slx #11 71-6-slx #12
463	150.00	0.85	4826.00	5334.00	5080.00	100	71-6-slx #12 71-6-slx #13
464	150.00	2.06	4826.00	5334.00	5080.00	100	71-6-slx #14
465	150.00	0.85	7259.00	8019.00	7639.00	100	71-6-slx #15
466 467	150.00	2.06	7259.00	8019.00	7639.00	100	71-6-slx #16
468	150.00 150.00	0.85 2.06	9688.00 9688.00	10708.00 10708.00	10198.00 10198.00	100 100	71-6-slx #17 71-6-slx #18
469	200.00	0.85	4826.00	5334.00	5080.00	100	71-6-stx #18
470	200.00	2.06	4826.00	5334.00	5080.00	100	71-6-slx #20

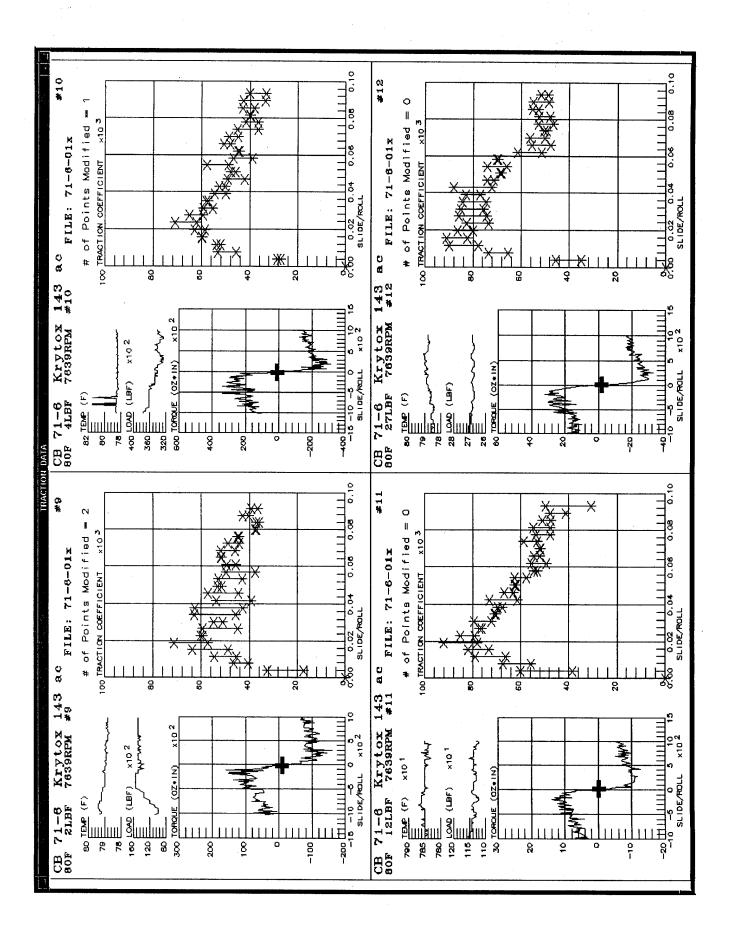
Data set: CB 71-6 Krytox 143 ac ....continued

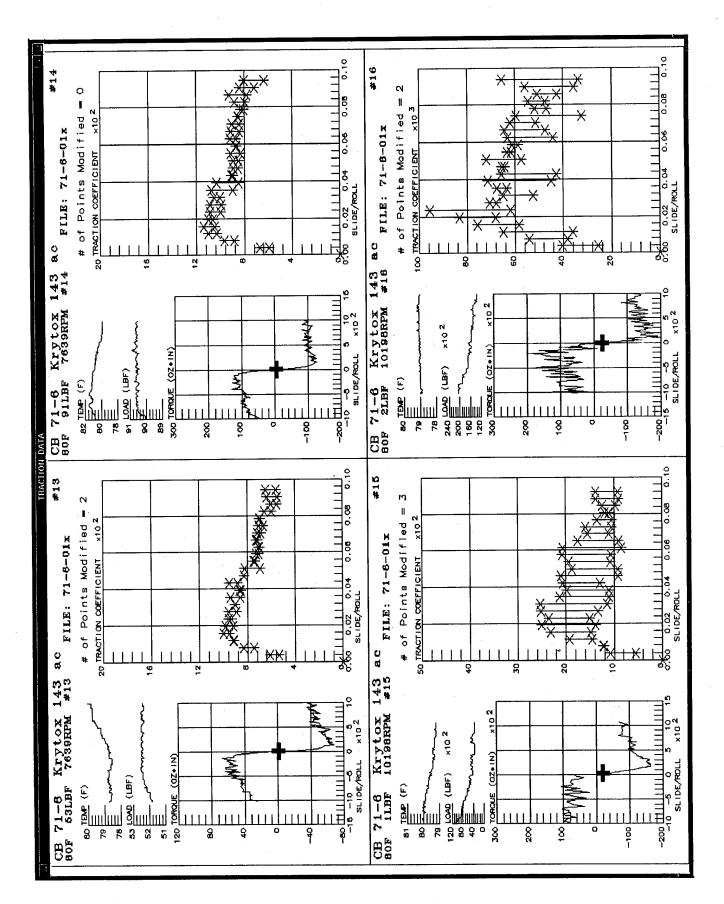
	Temp F	Load lbf	Rpm1	Rpm2	RollRpm	Points	Dataset/Test #
471	200.00	0.85	7259.00	8019.00	7639.00	100	71-6-stx #21
472	200.00	2.06	7259.00	8019.00	7639.00	100	71-6-slx #22
473	200.00	0.85	9688.00	10708.00	10198.00	100	71-6-slx #23
474	200.00	2.06	9688.00	10708.00	10198.00	100	71-6-slx #24
475	250.00	0.85	4826.00	5334.00	5080.00	100	71-6-slx #25
476	250.00	2.06	4826.00	5334.00	5080.00	100	71-6-slx #26
477	250.00	0.85	7259.00	8019.00	7639.00	100	71-6-slx #27
478	250.00	2.06	7259.00	8019,00	7639.00	100	71-6-slx #28
479	250.00	0.85	9688.00	10708.00	10198.00	100	71-6-slx #29
480	250.00	2.06	9688.00	10708.00	10198.00	100	71-6-slx #30
481	300.00	0.85	4826.00	5334.00	5080.00	100	71-6-slx #31
482	300.00	2.06	4826.00	5334.00	5080.00	100	71-6-slx #32
483	300.00	0.85	7259.00	8019.00	7639.00	100	71-6-slx #33
484	300.00	2.06	7259.00	8019.00	7639.00	100	71-6-slx #34
485	300.00	0.85	9688.00	10708.00	10198.00	100	71-6-slx #35
486	300.00	2.06	9688.00	10708.00	10198.00	100	71-6-slx #36

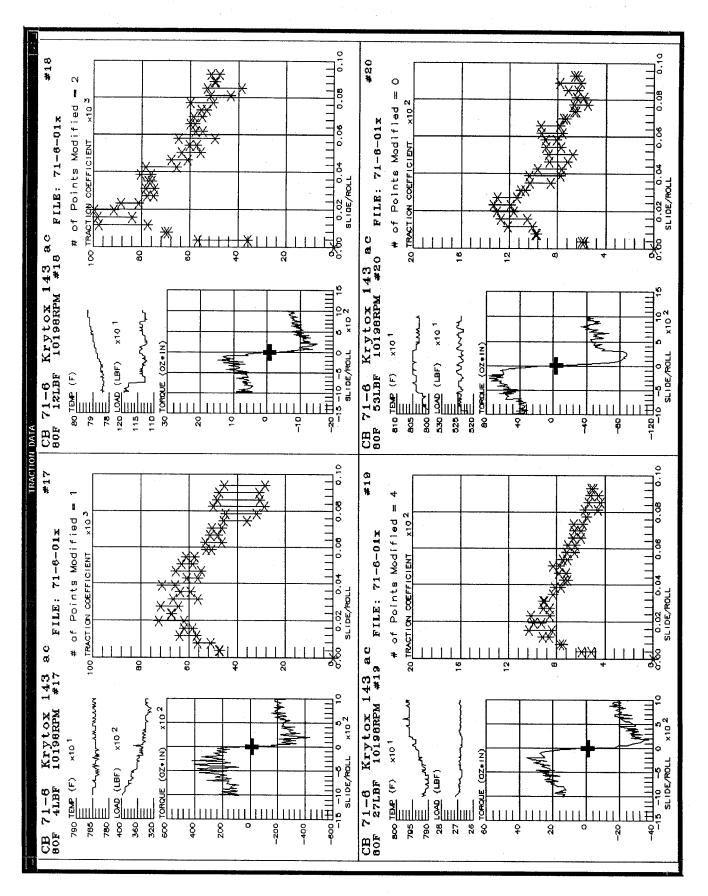
Filename	Temp	RollRpm	DataCurve #
cb1.dat	80.00	1260.00	185 186 187 188
cb2.dat	80.00	2559.00	192 193 194 195
cb3.dat	80.00	5080.00	25 26 27 28
cb4.dat	80.00	7639.00	32 33 34 35
cb5.dat	80.00	10198.00	39 40 41 42
cb6.dat	100.00	1260.00	229 230 231 232
cb7.dat	100.00	2559.00	236 237 238 239
cb8.dat	100.00	5080.00	46 47 48 49
cb9.dat	100.00	7639.00	53 54 55 56
cb10.dat	100.00	10198.00	60 61 62 63
cb11.dat	150.00	1260.00	271 272 273 274
cb12.dat	150.00	2559.00	278 279 280 281
cb13.dat	150.00	5080.00	67 68 69 70
cb14.dat	150.00	7639.00	74 75 76 77
cb15.dat	150.00	10198.00	81 82 83 84
cb16.dat	200.00	1260.00	313 314 315 316
cb17.dat	200.00	2559.00	320 321 322 323
cb18.dat	200.00	5080.00	88 89 90 91
cb19.dat	200.00	7639.00	95 96 97 98
cb20.dat	200.00	10198.00	102 103 104 105
cb21.dat	250.00	1260.00	355 356 357 358
cb22.dat	250.00	2559.00	362 363 364 365
cb23.dat	250.00	5080.00	109 110 127 128
cb24.dat	250.00	7639.00	116 117 129 130
cb25.dat	250.00	10198.00	123 124 131 132
cb26.dat	300.00	1260.00	404 405 406 407
cb27.dat	300.00	2559.00	411 412 413 414
cb28.dat	300.00	5080.00	136 137 138 139
cb29.dat	300.00	7639.00	143 144 145 146
cb30.dat	300.00	10198.00	150 151 152 153

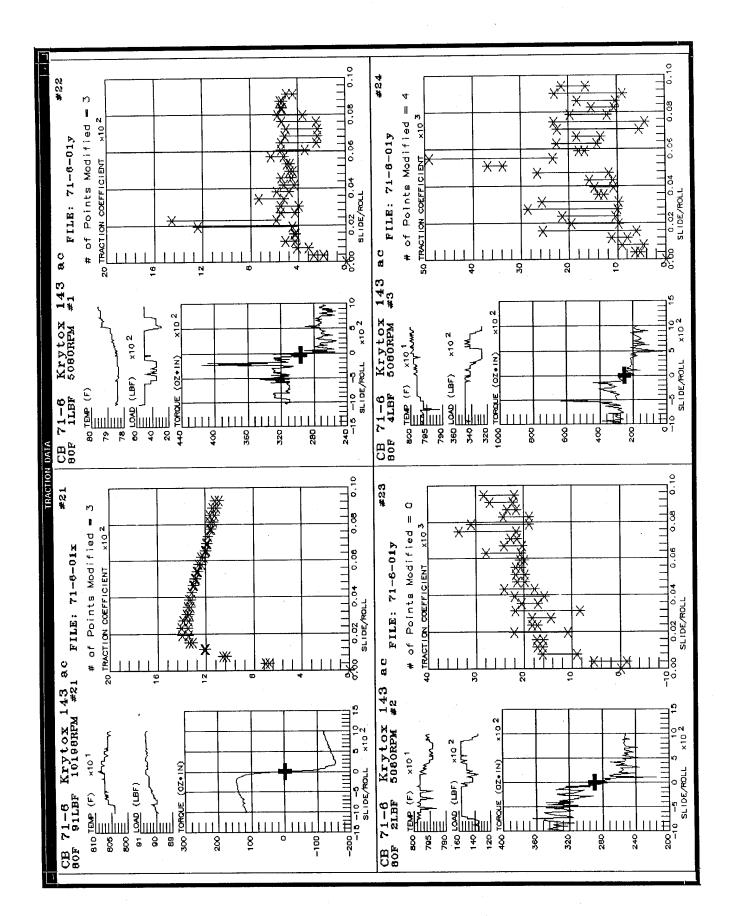


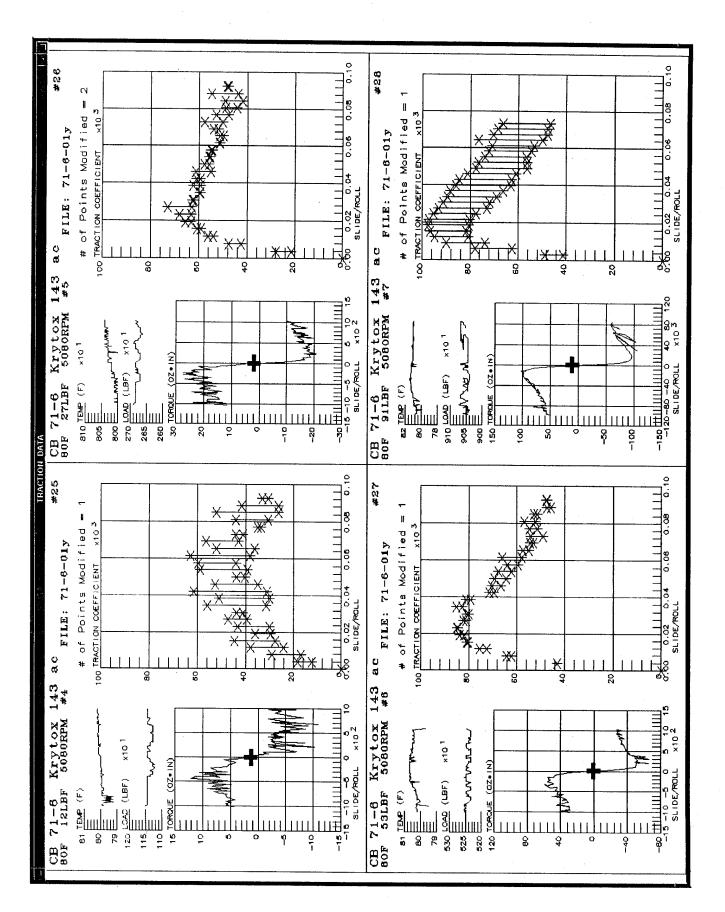


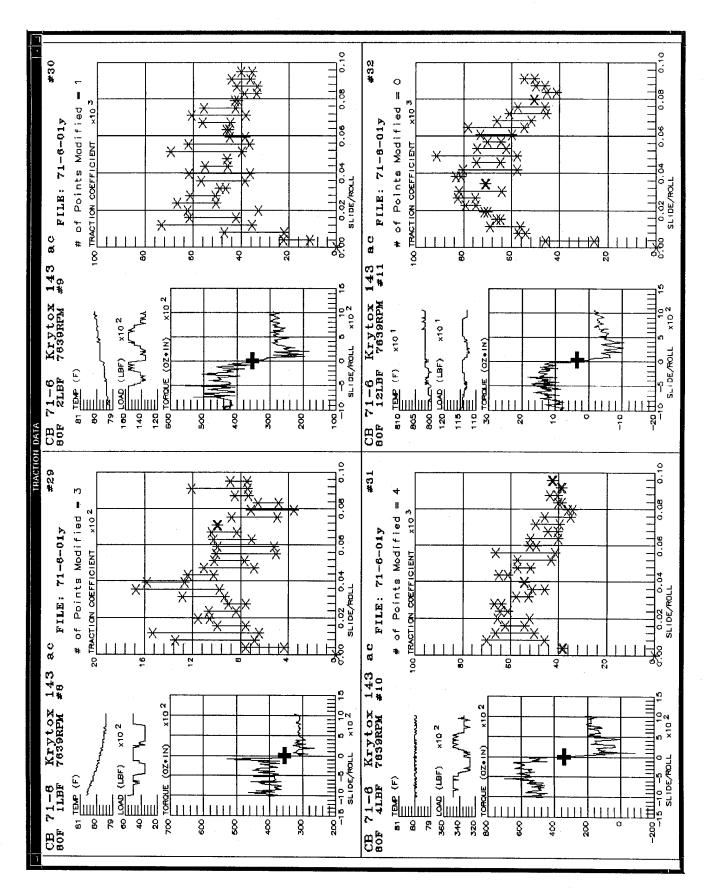


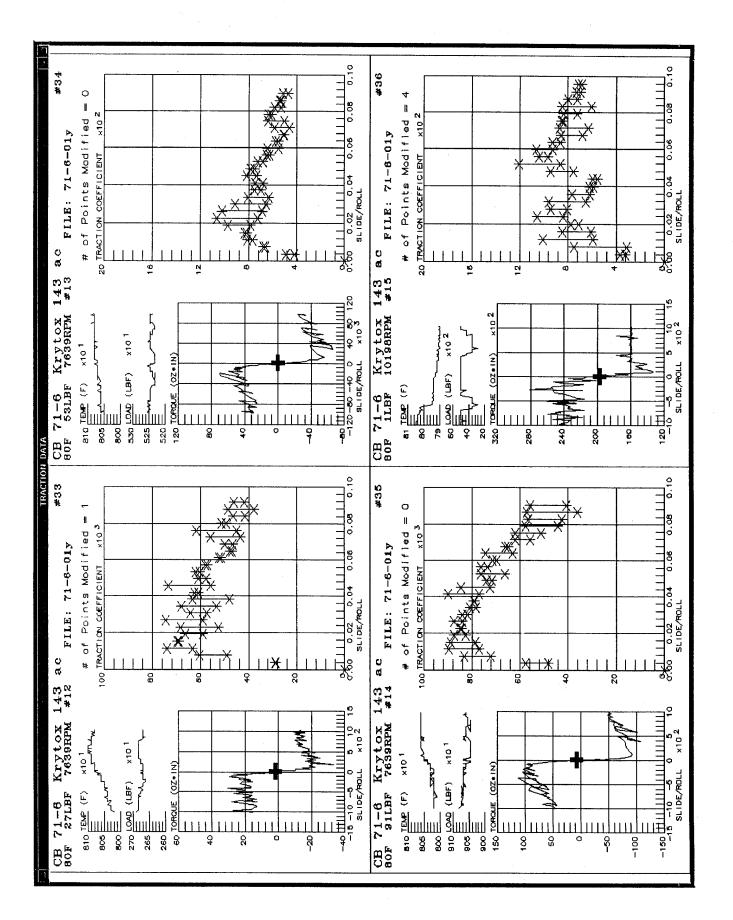


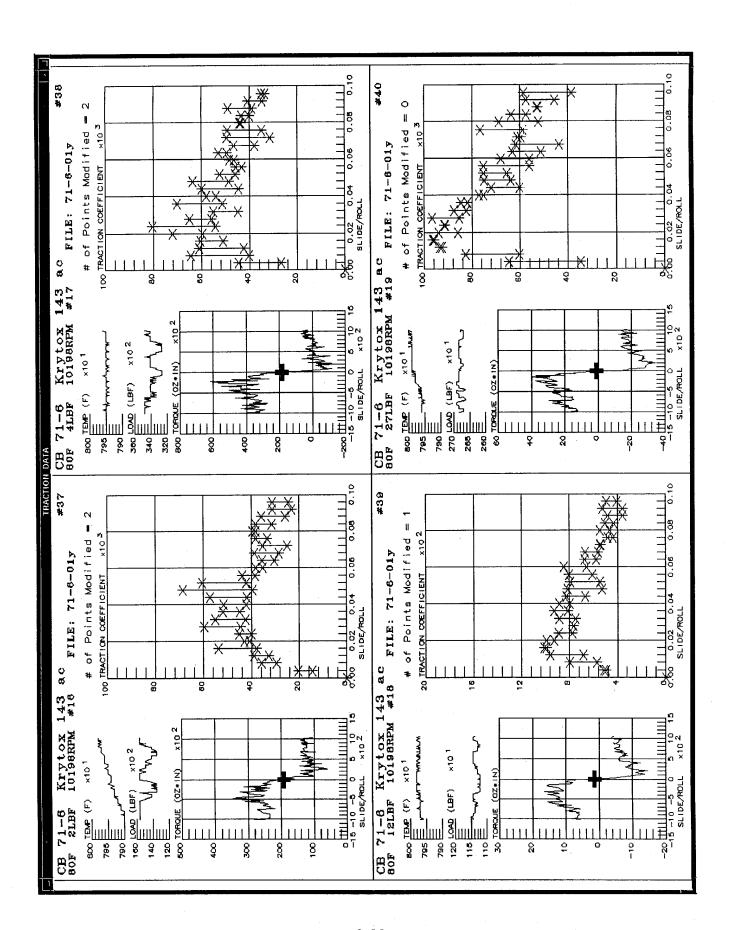


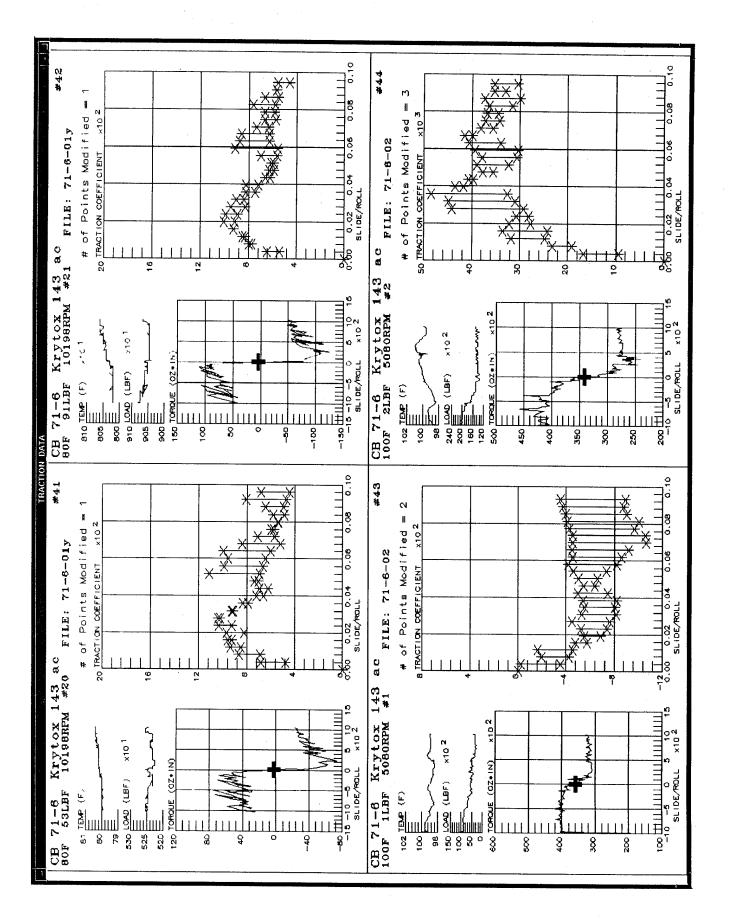


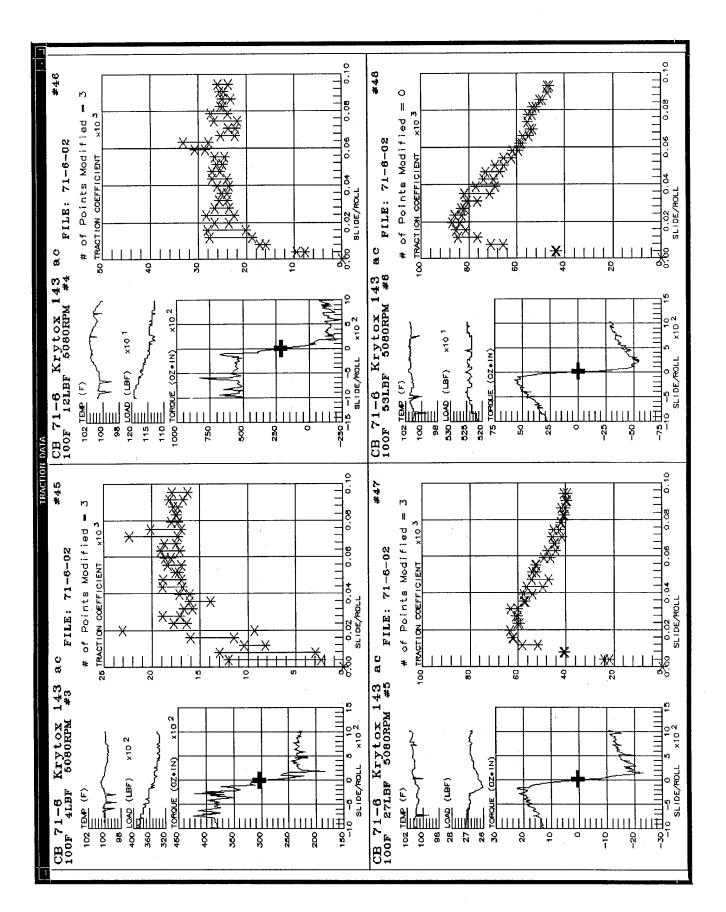


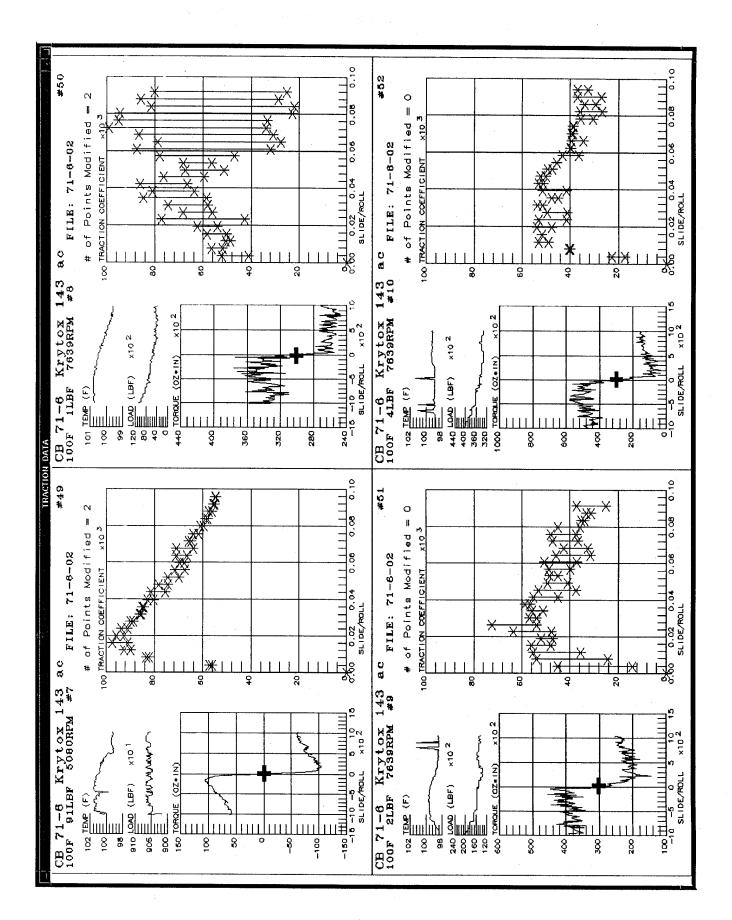


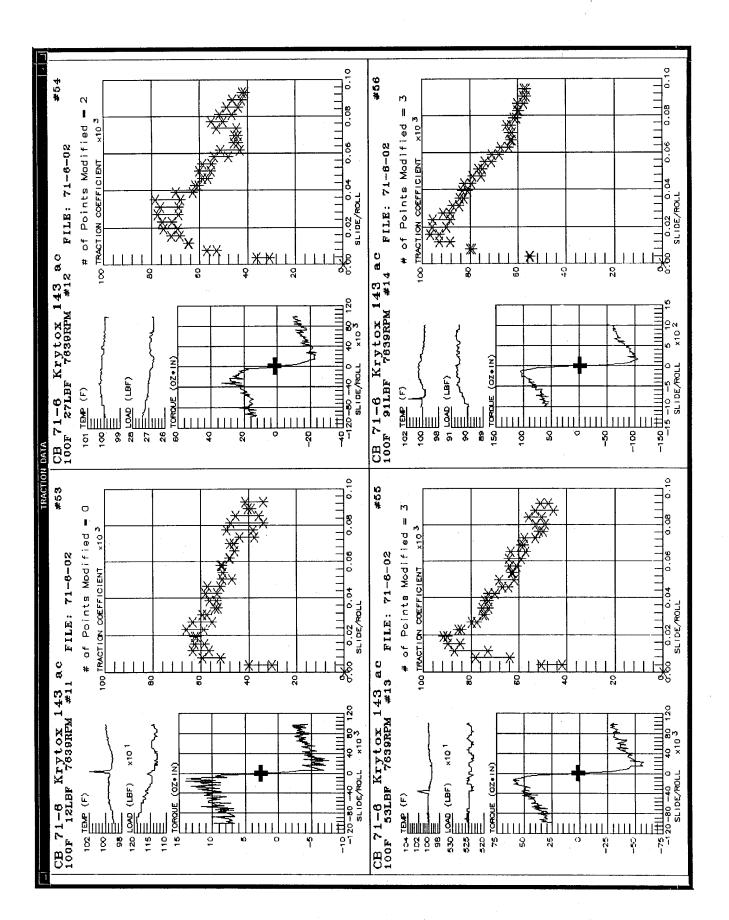


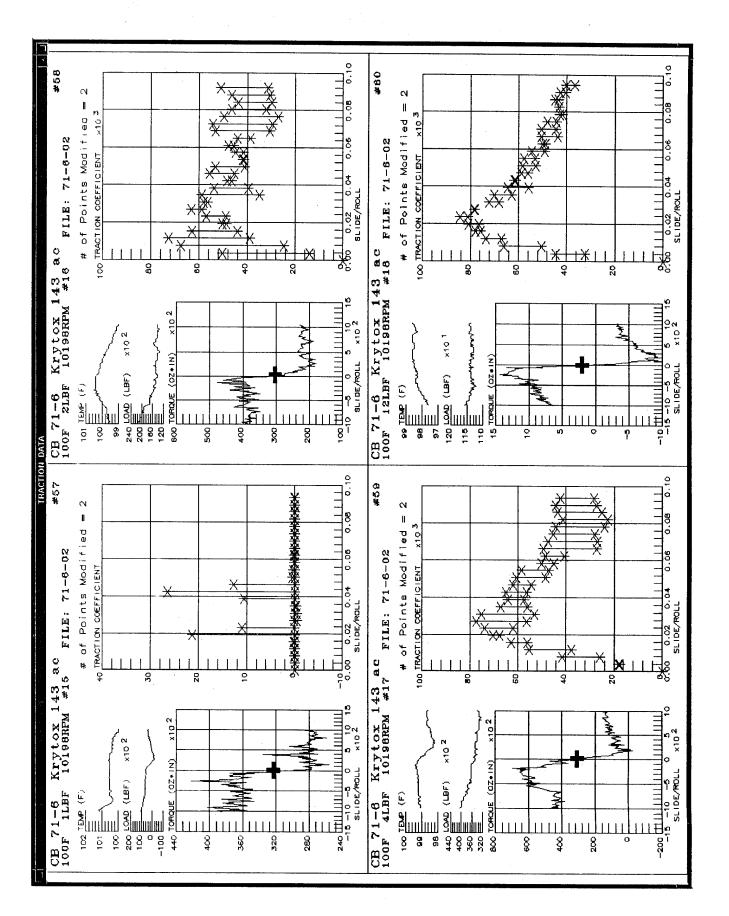


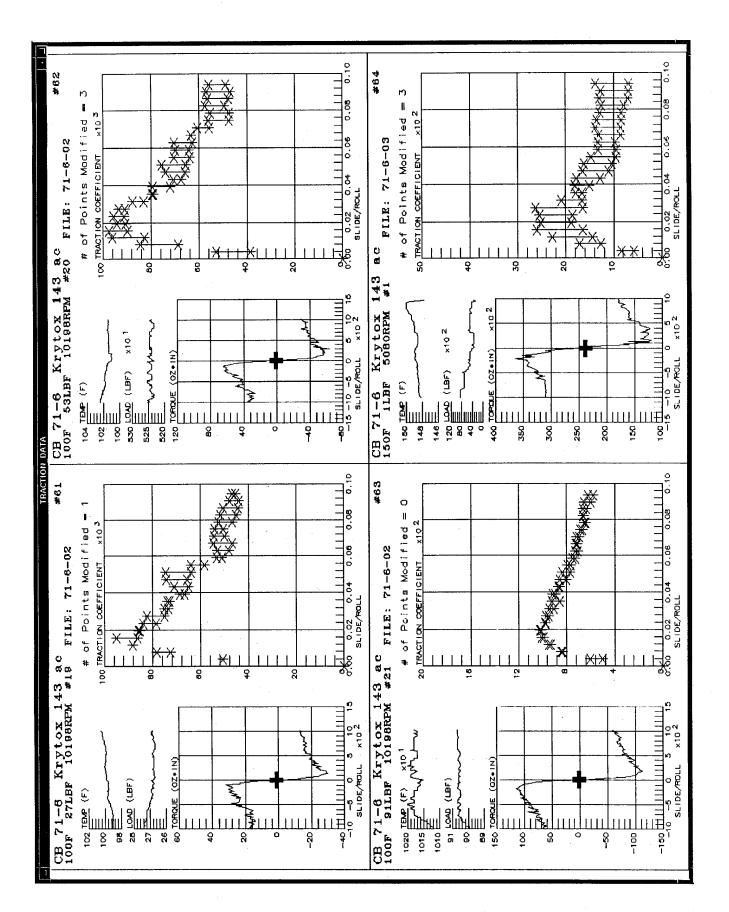


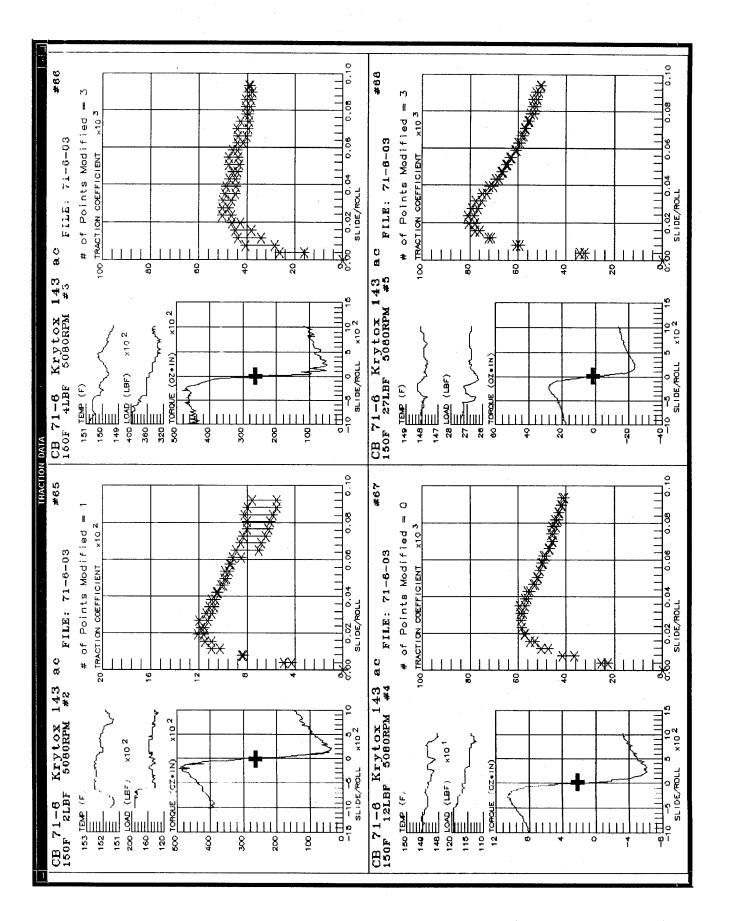


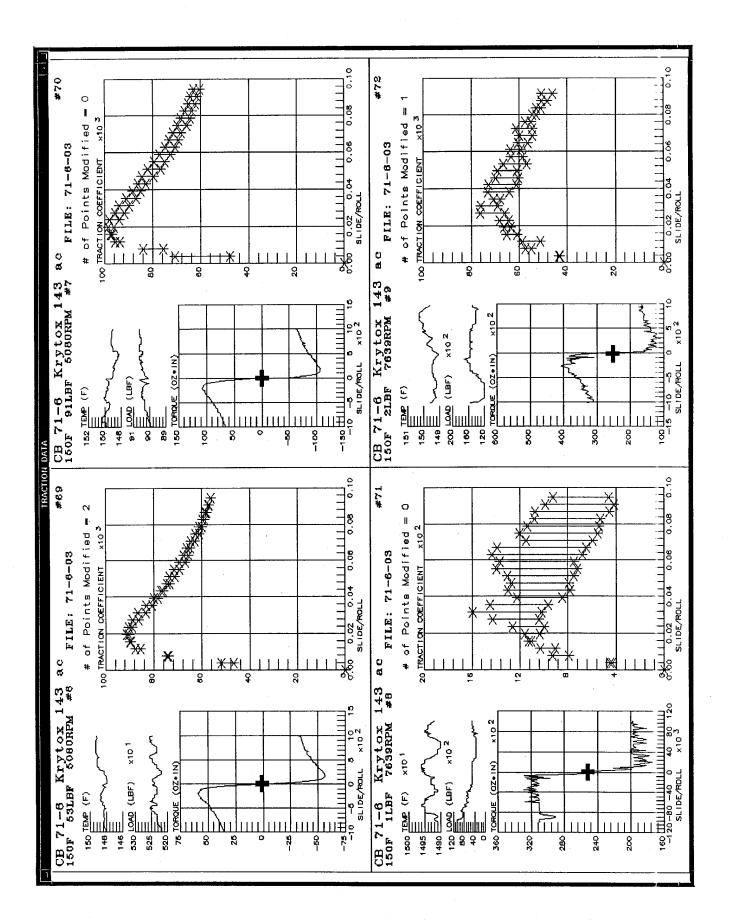


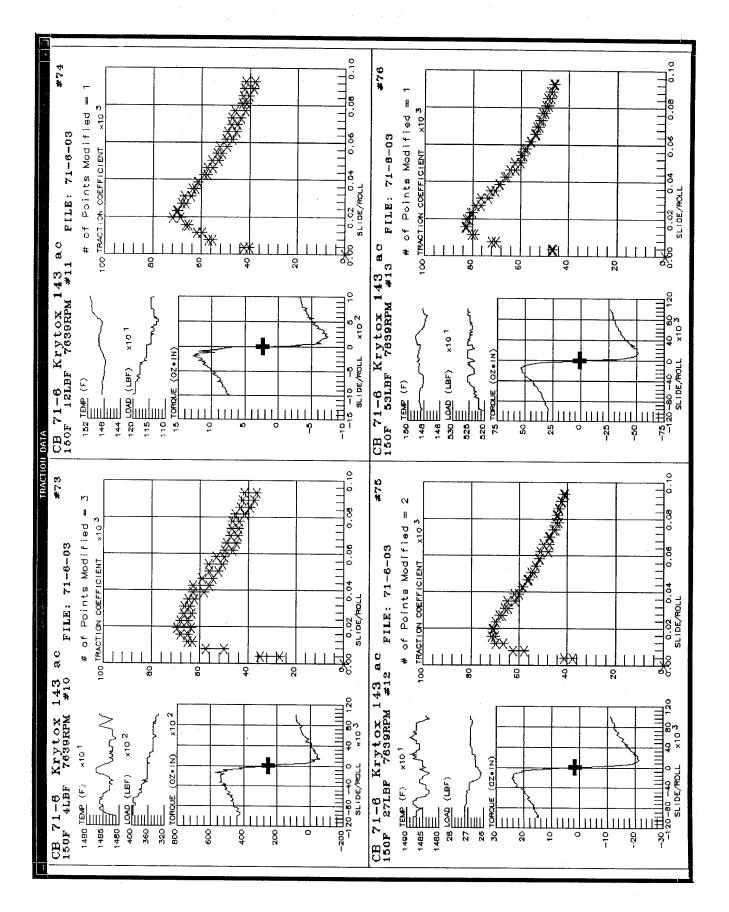


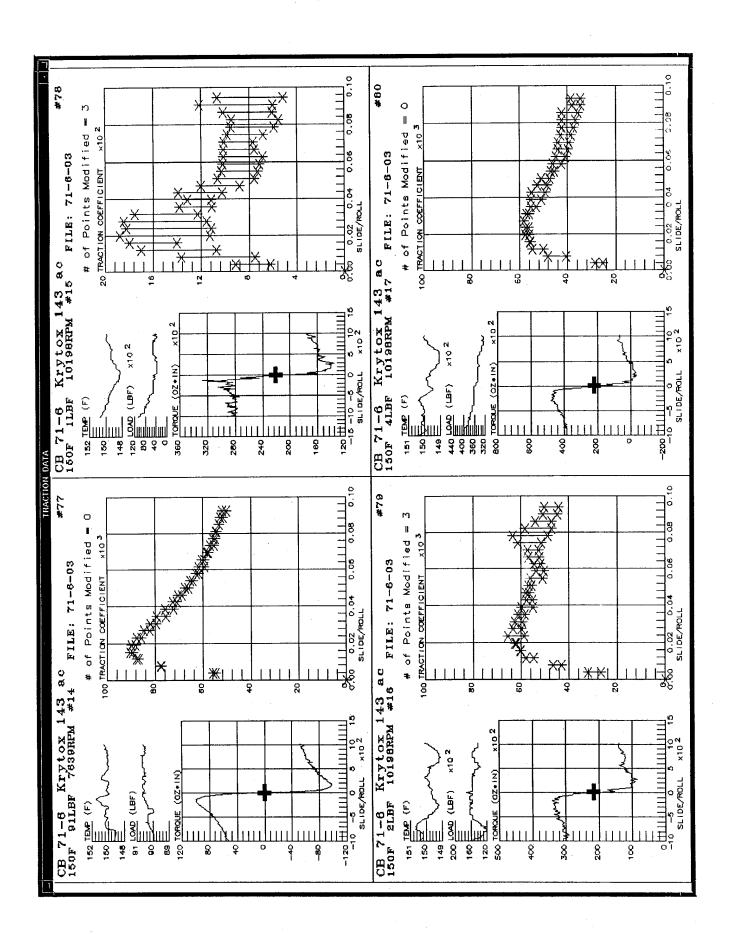


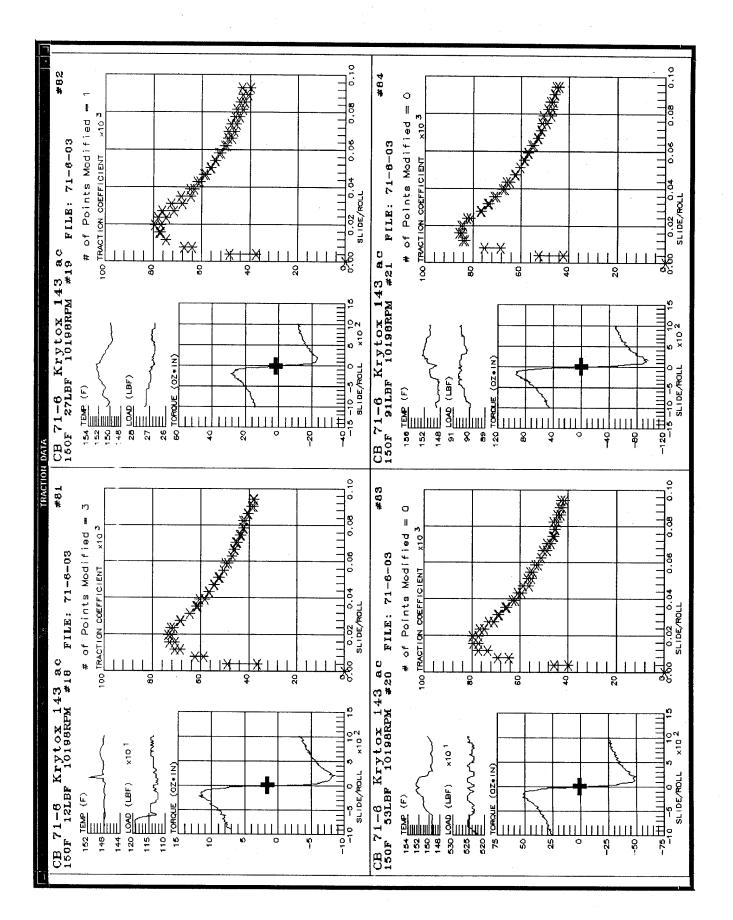


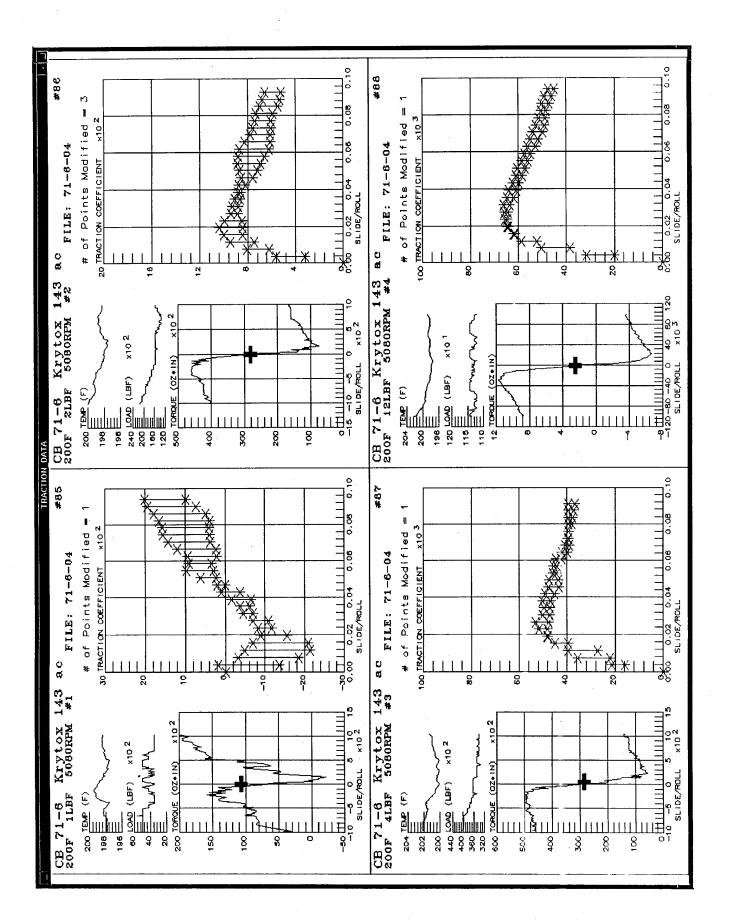


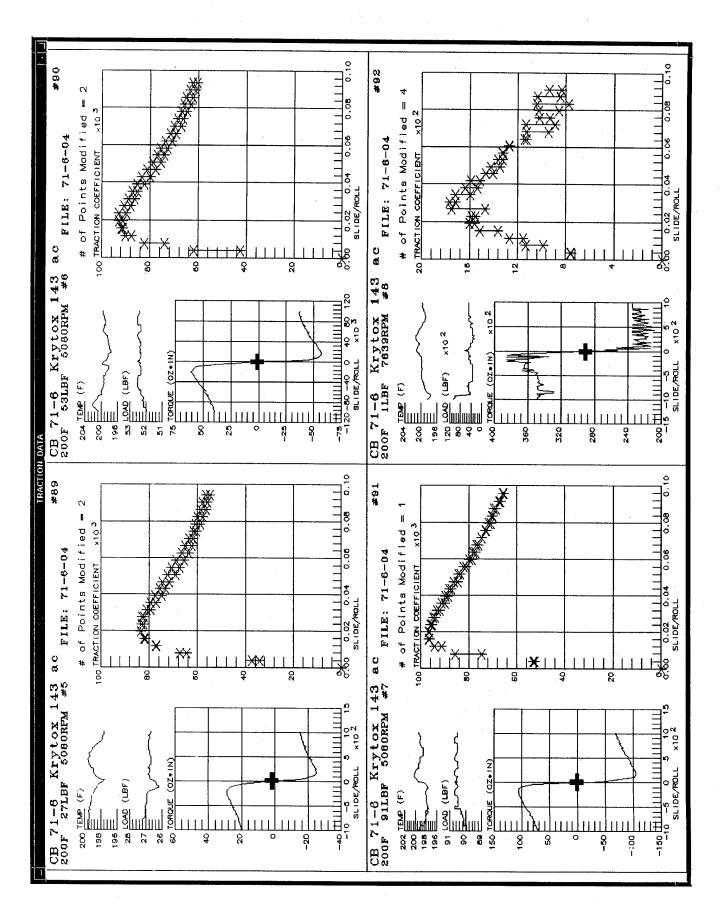


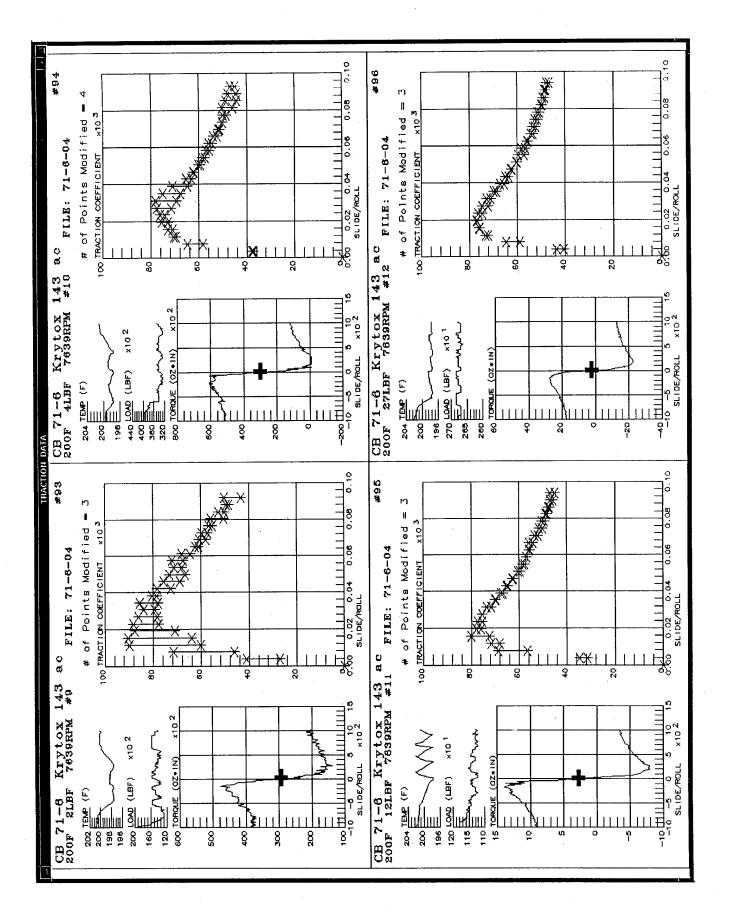


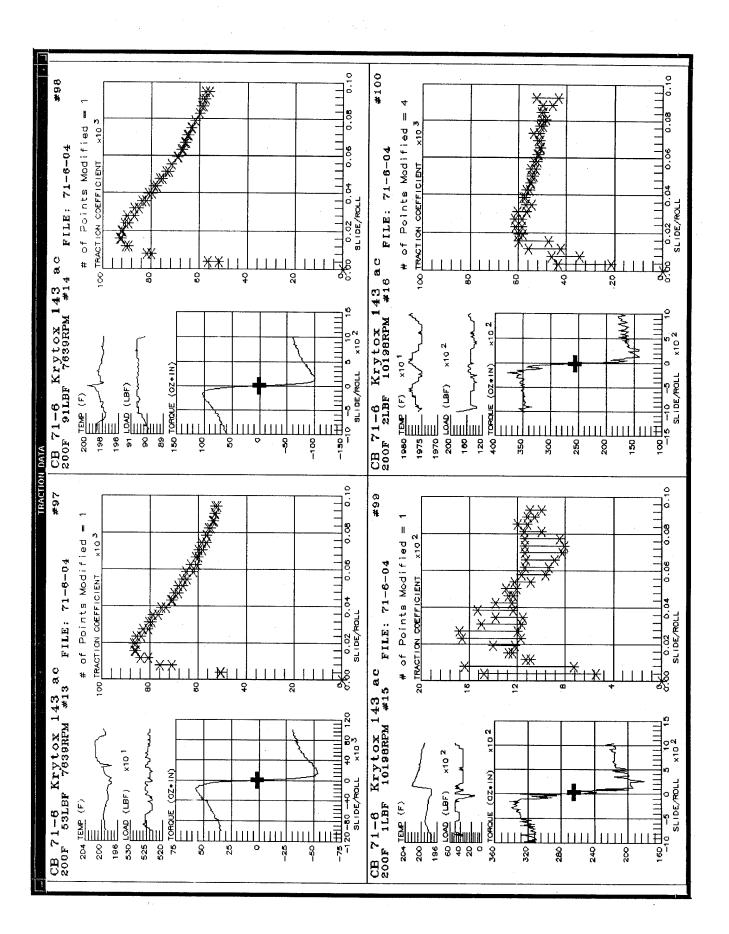


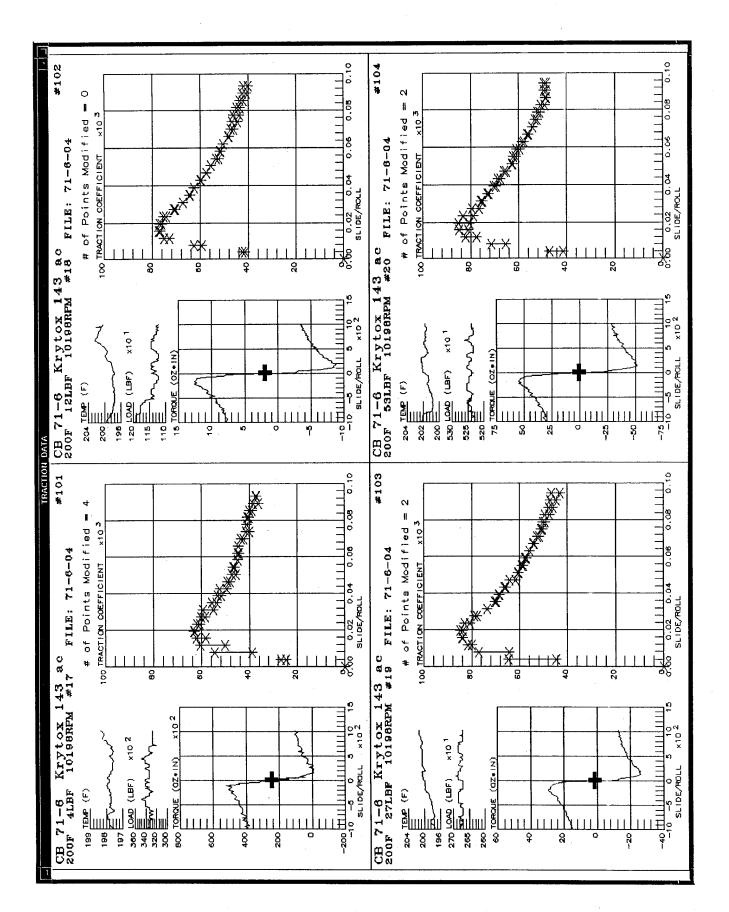


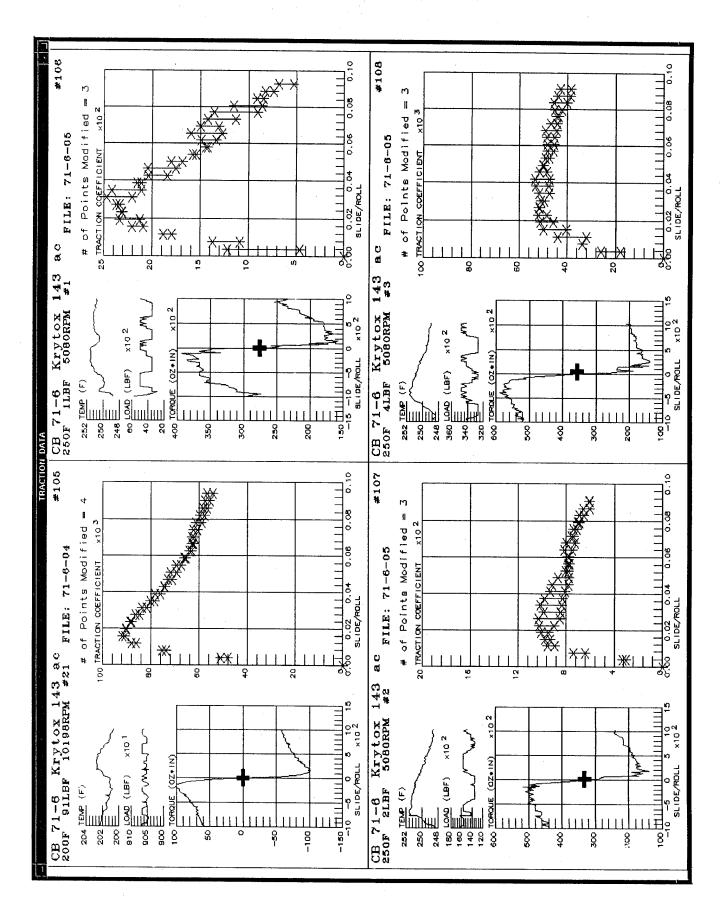


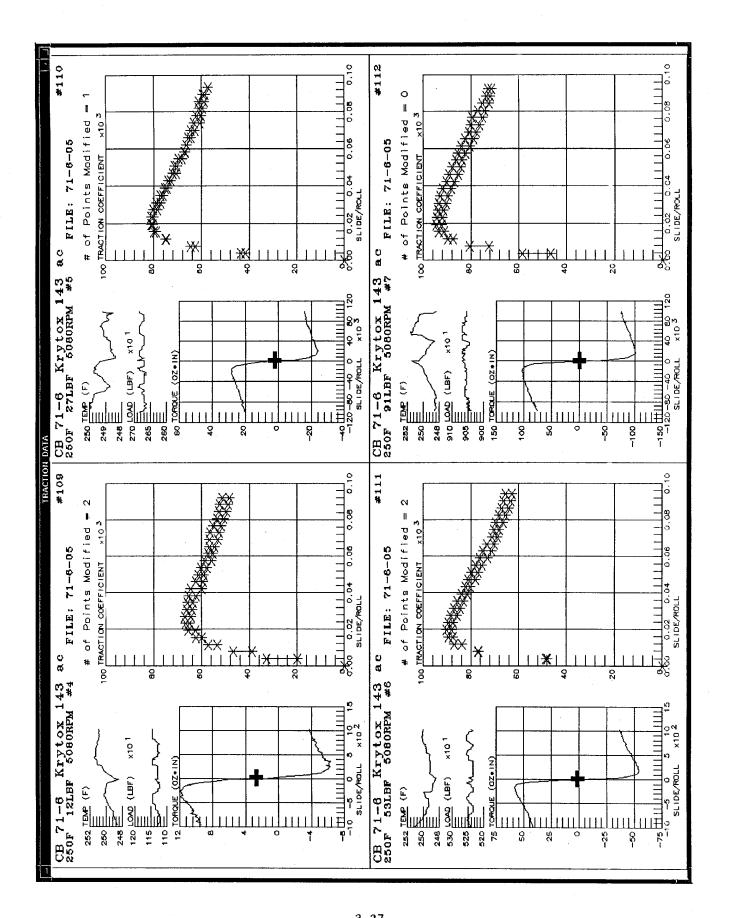


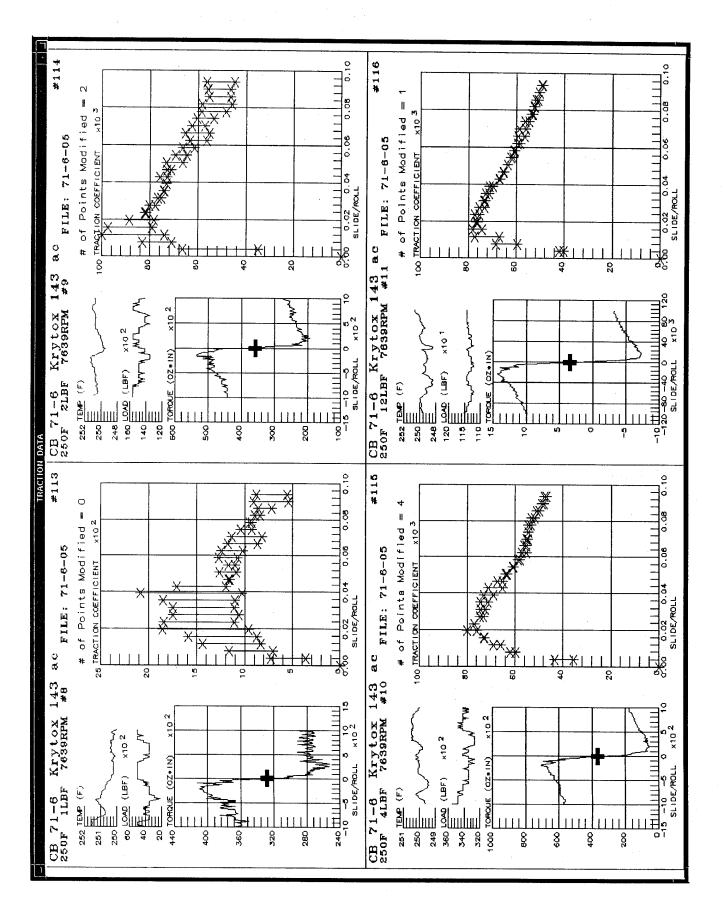


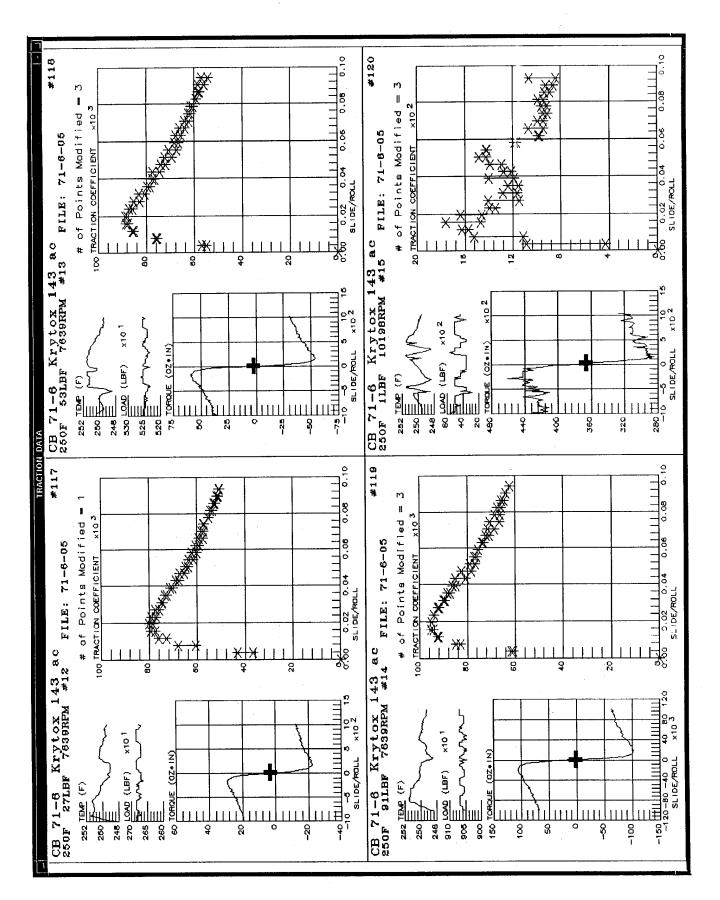


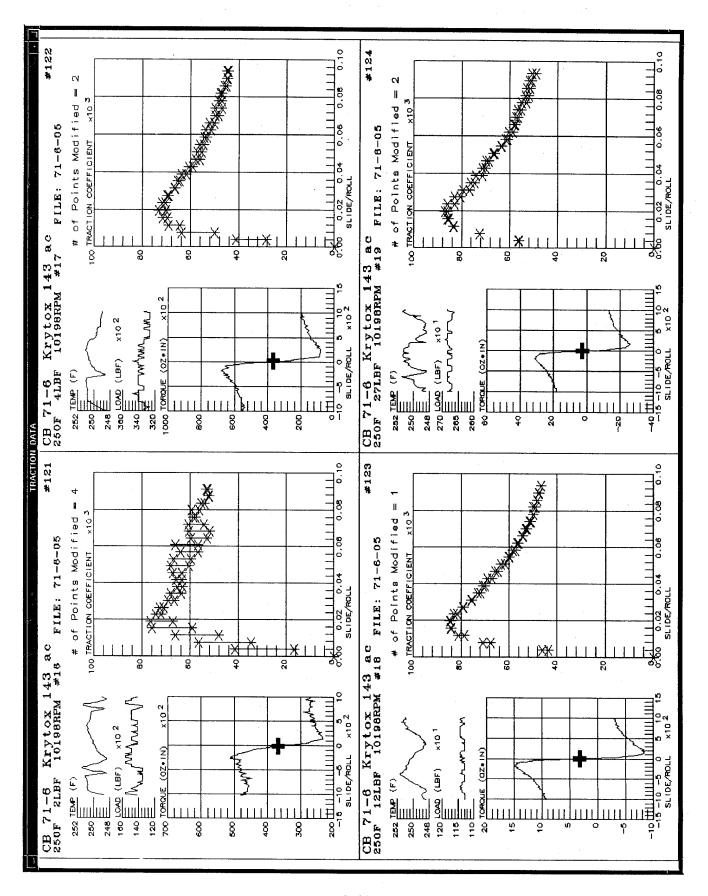


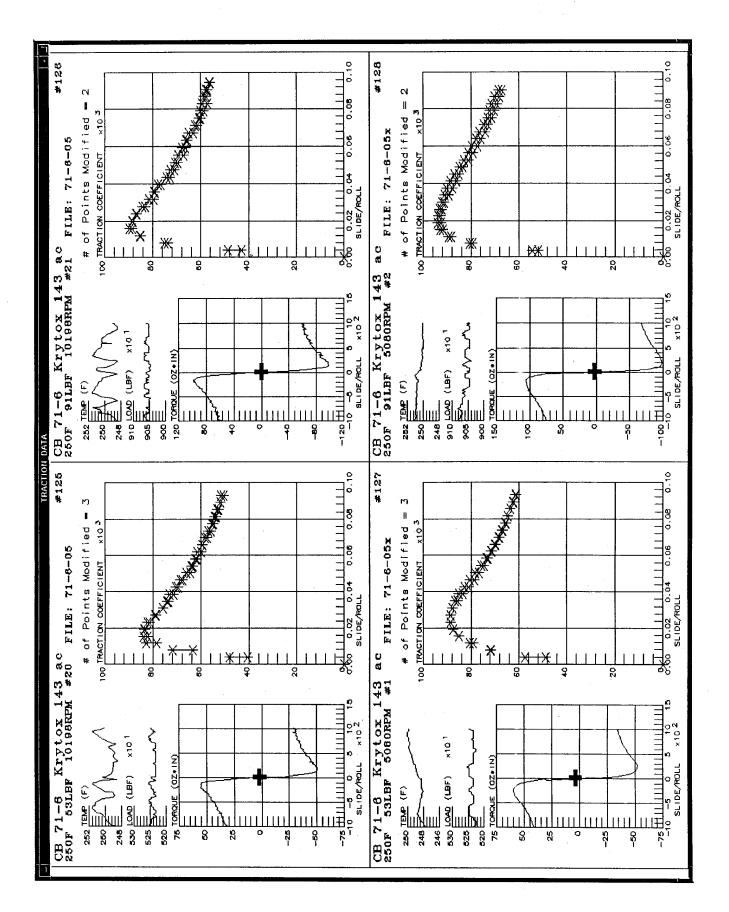


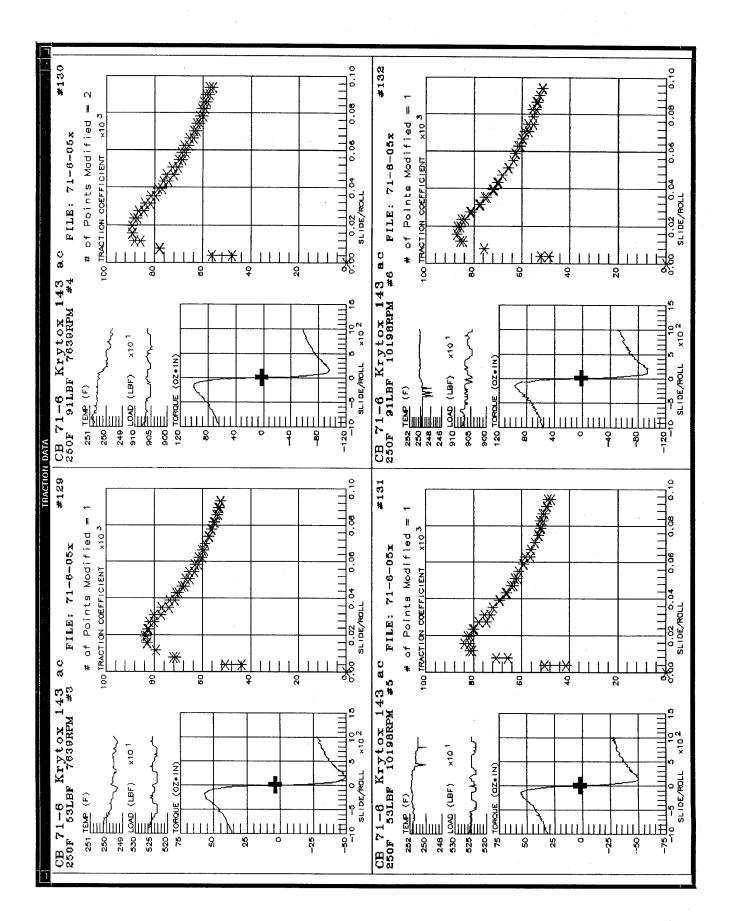


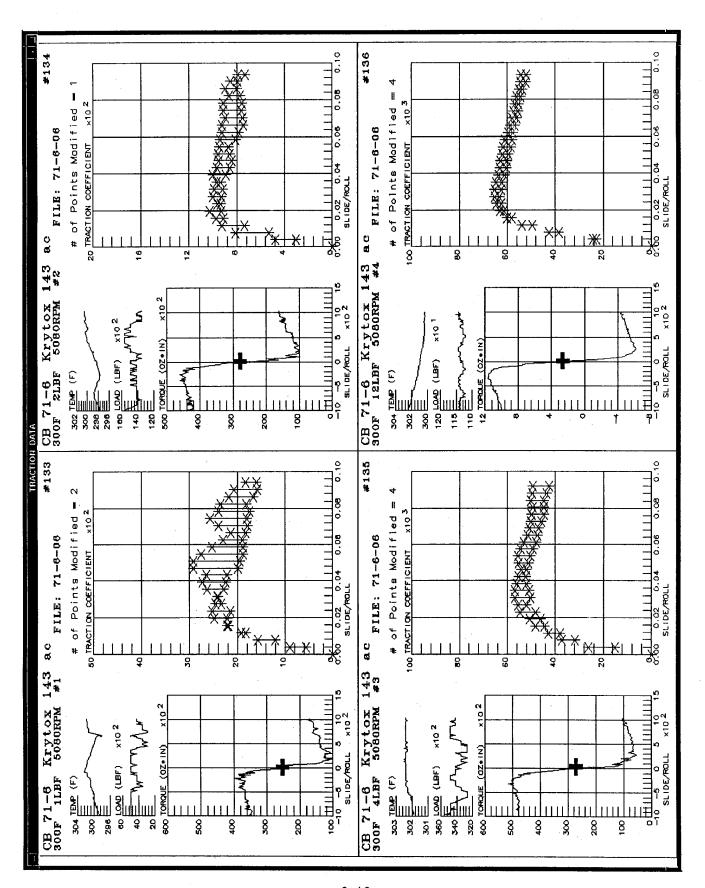


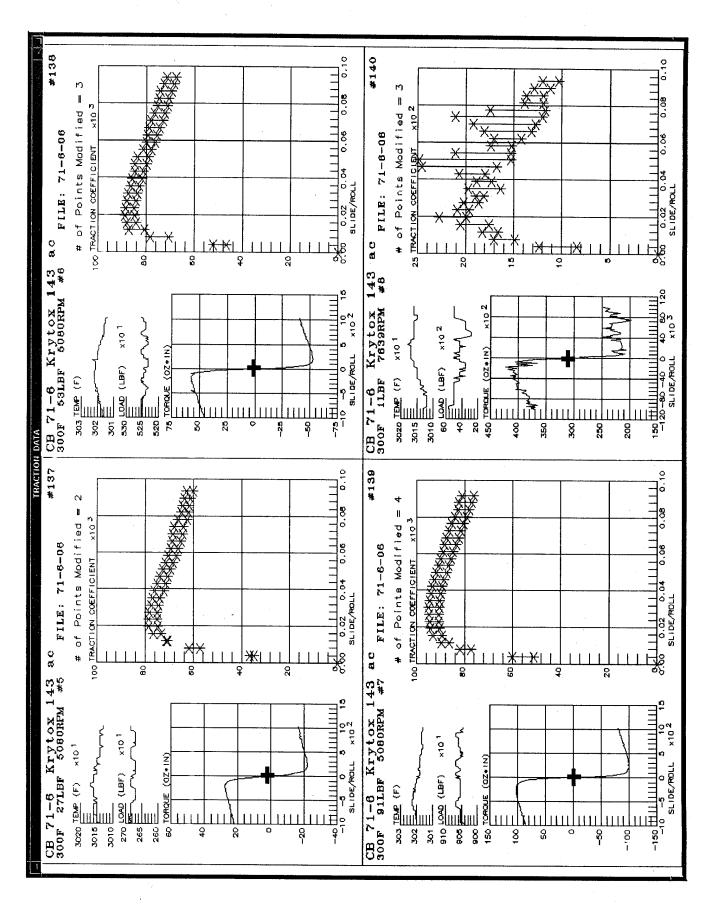


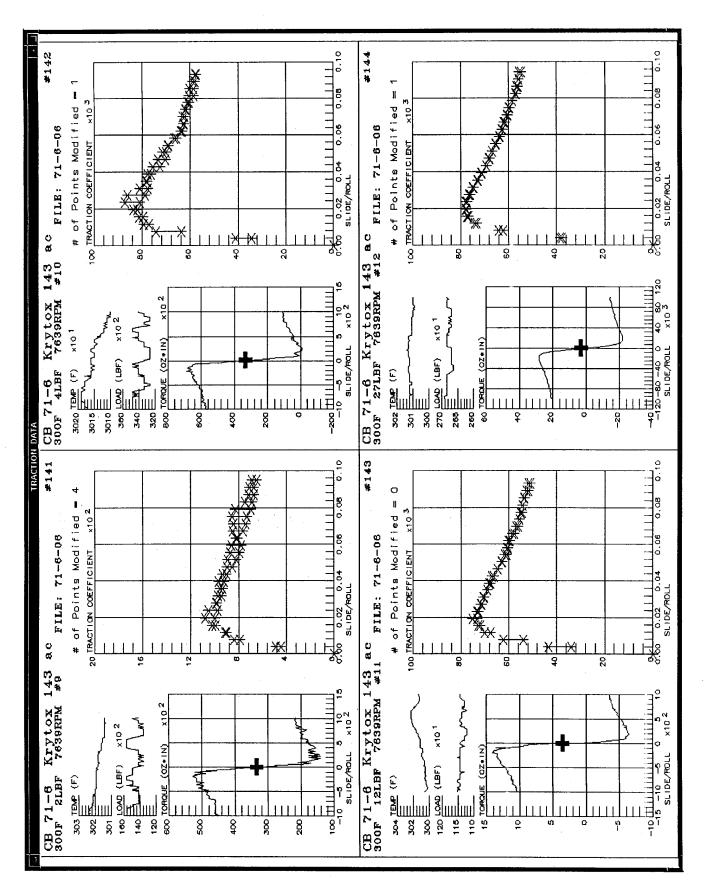


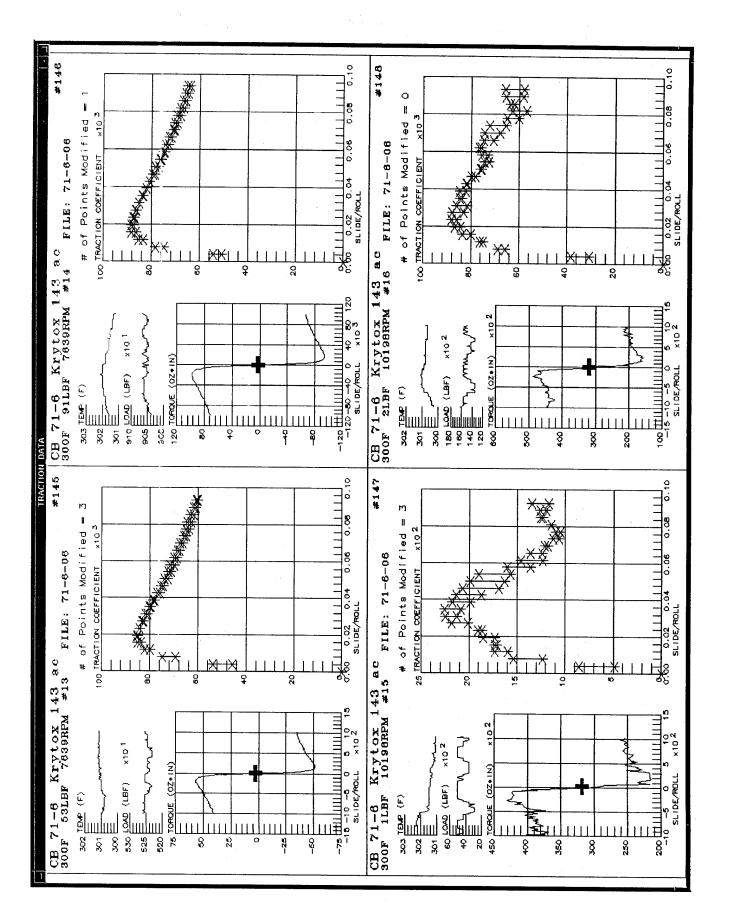


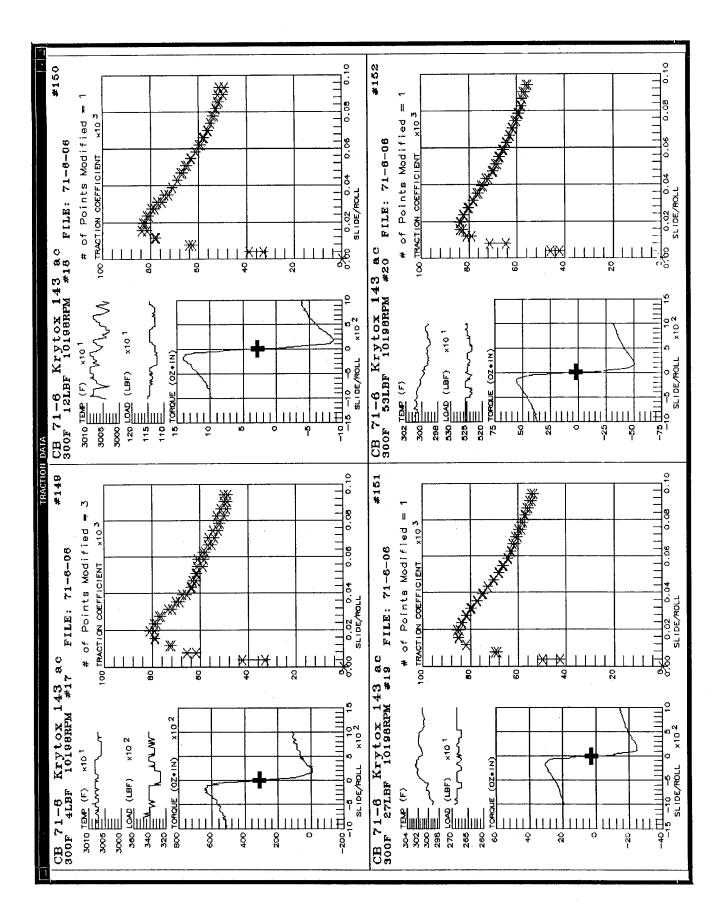


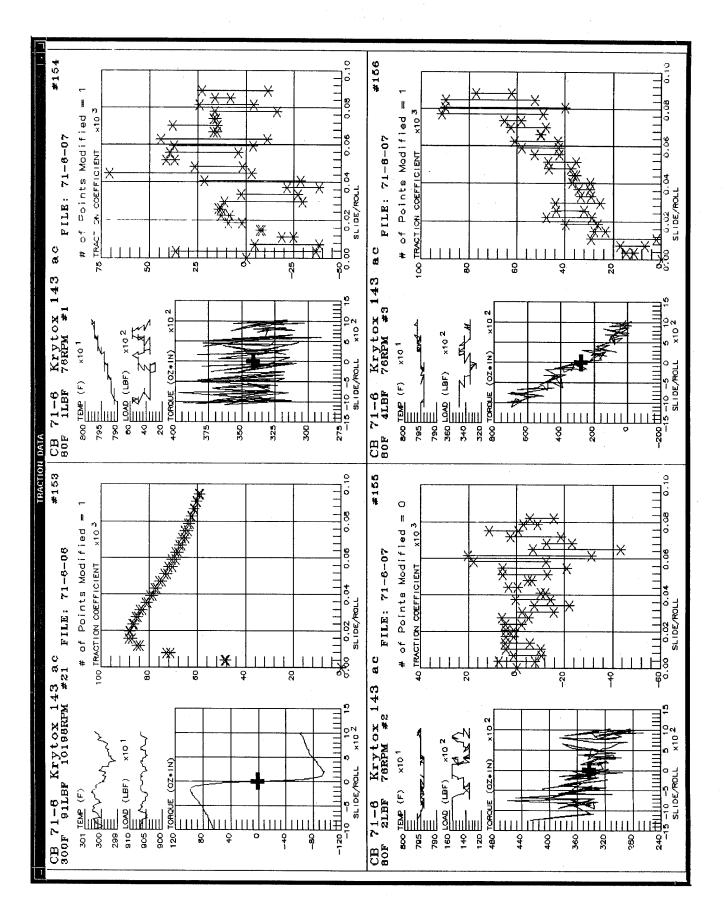


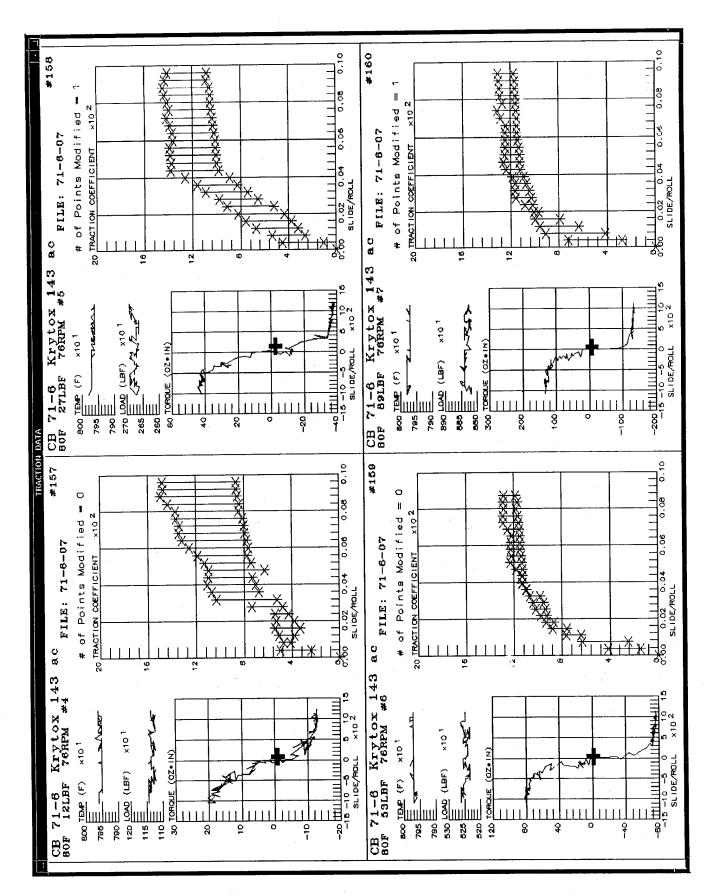


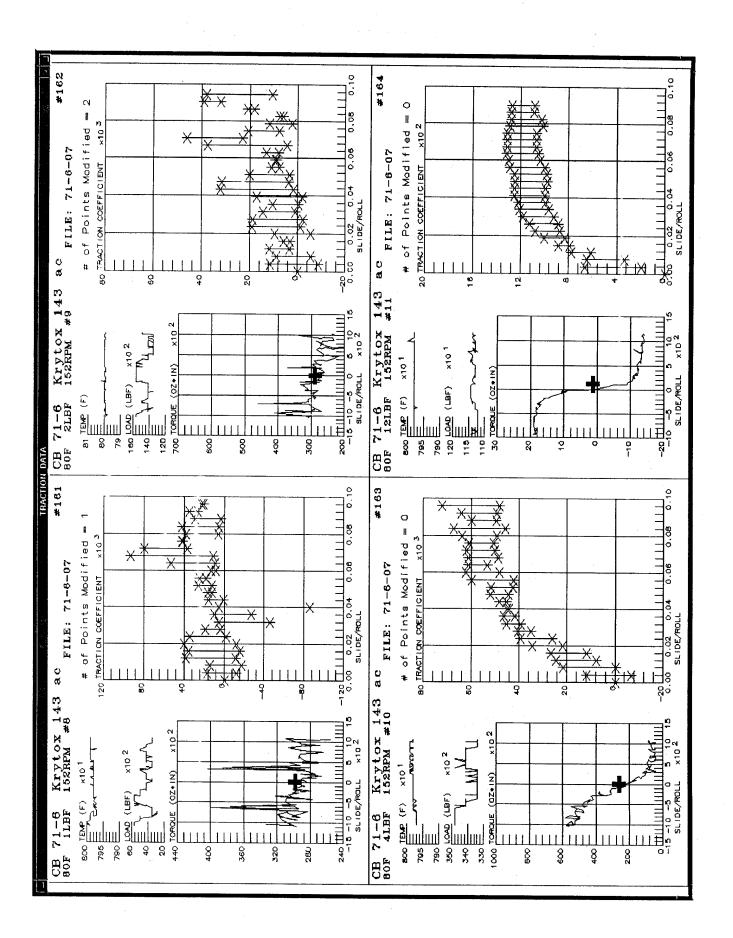


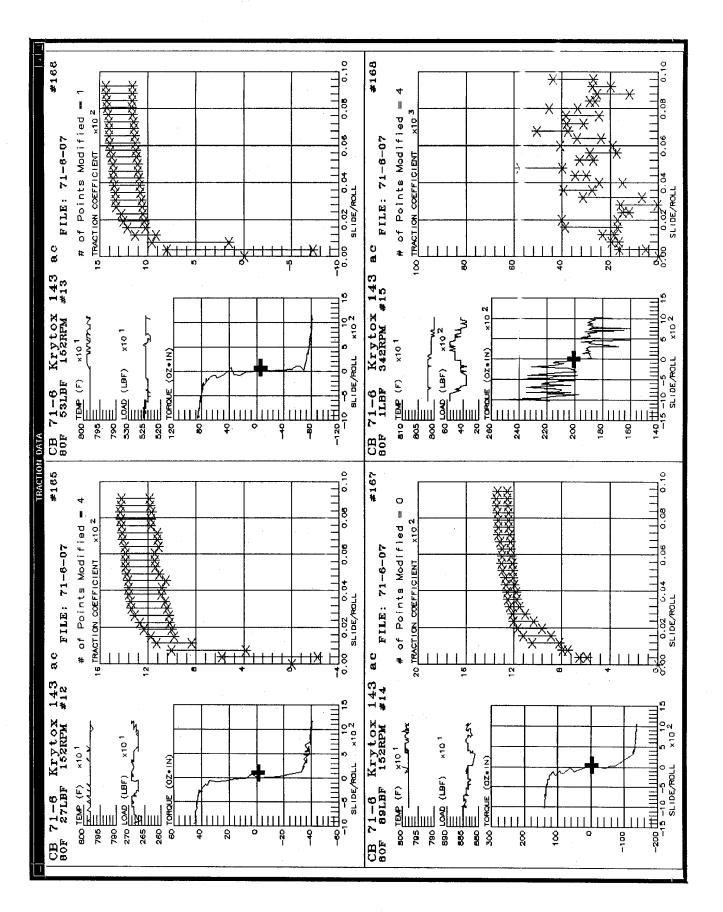


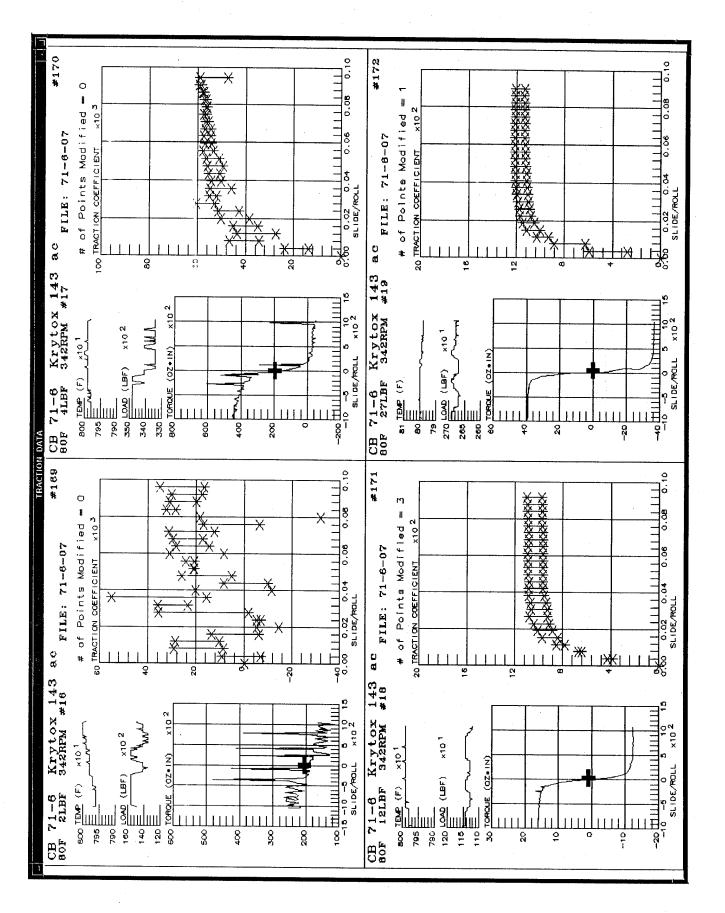


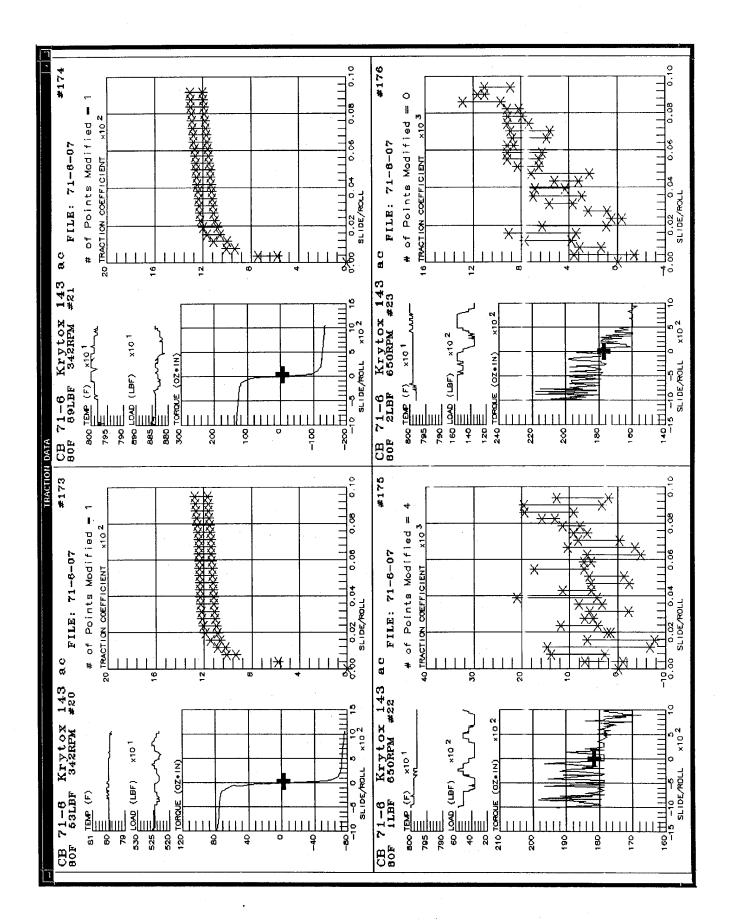


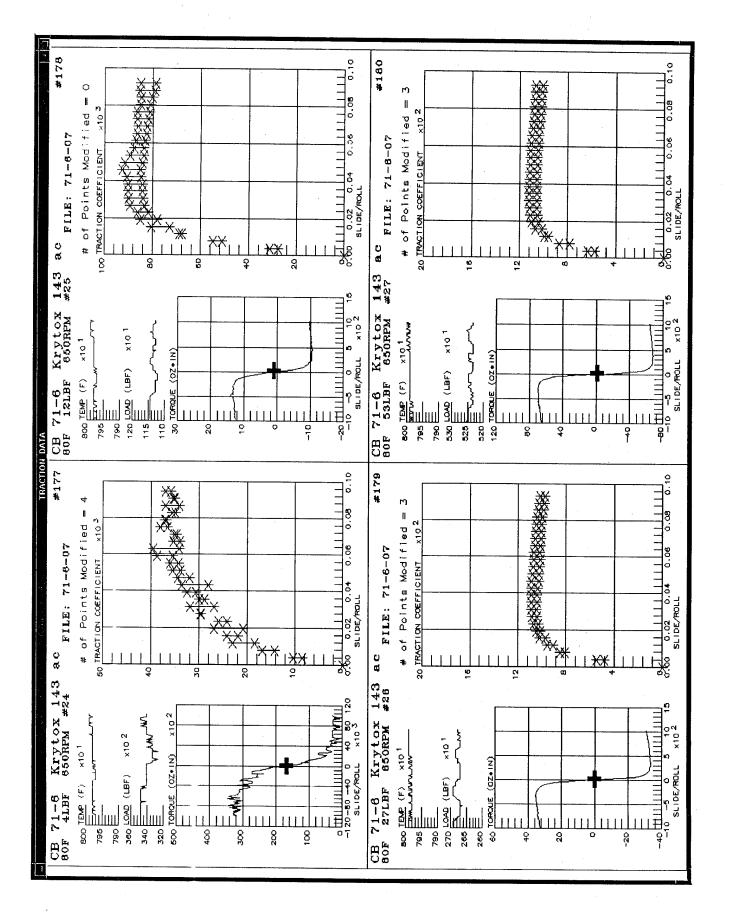


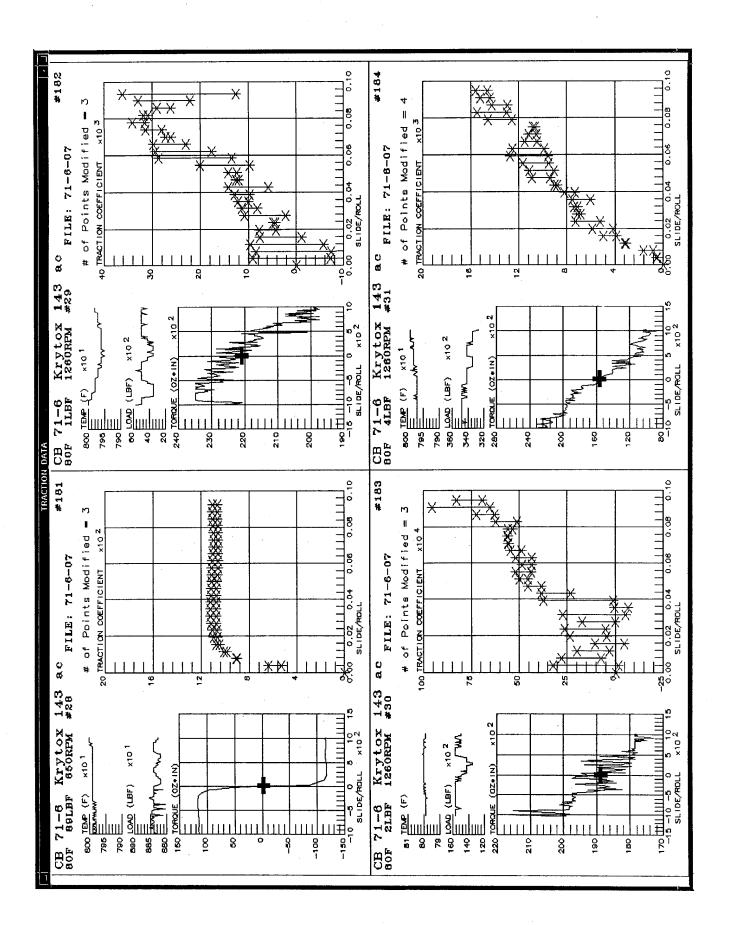


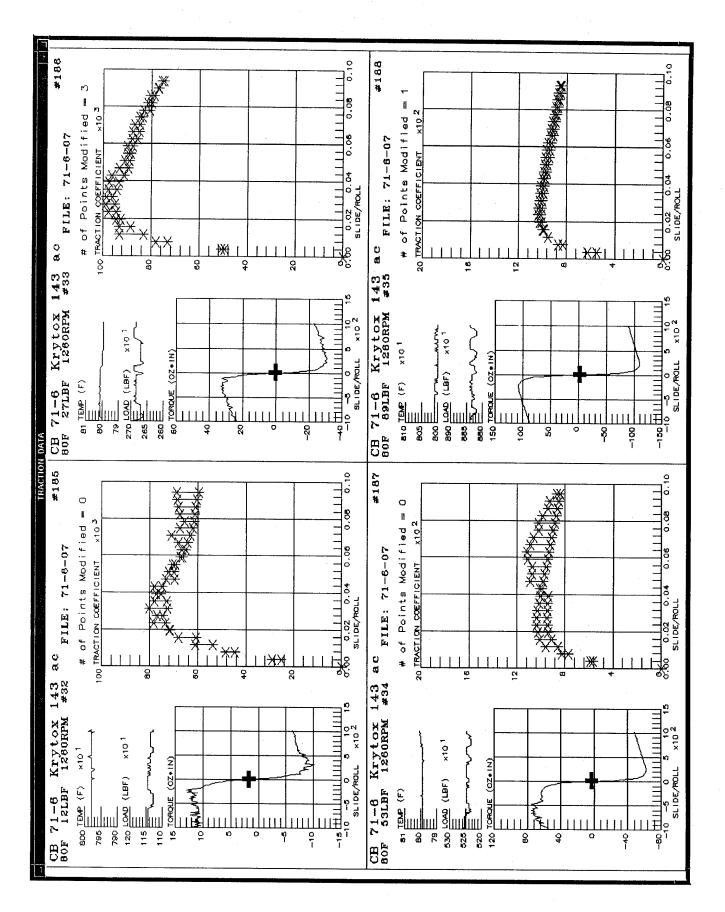


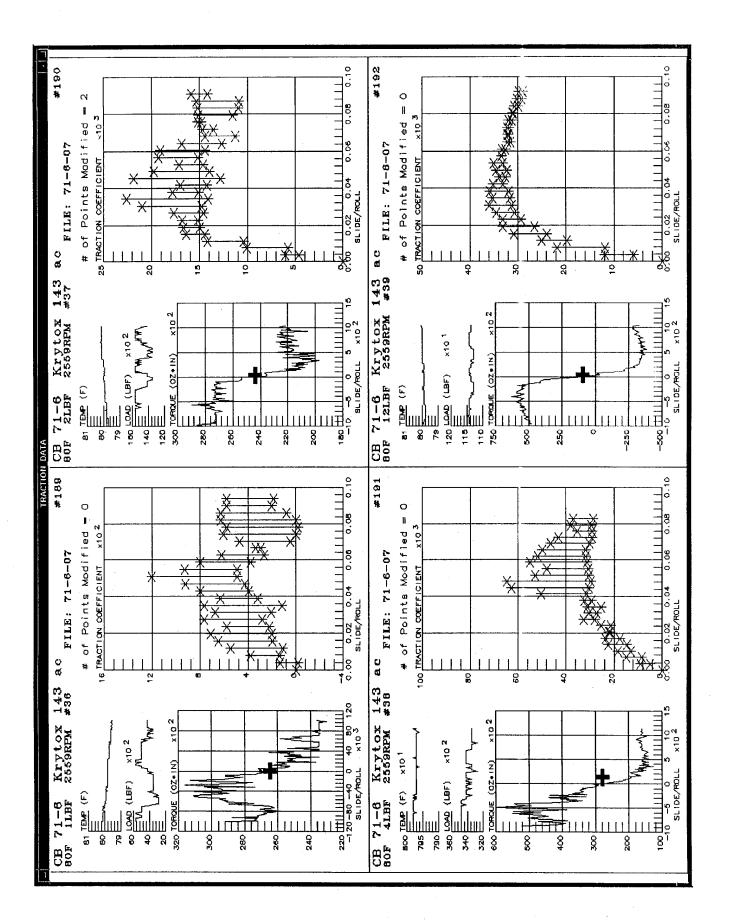


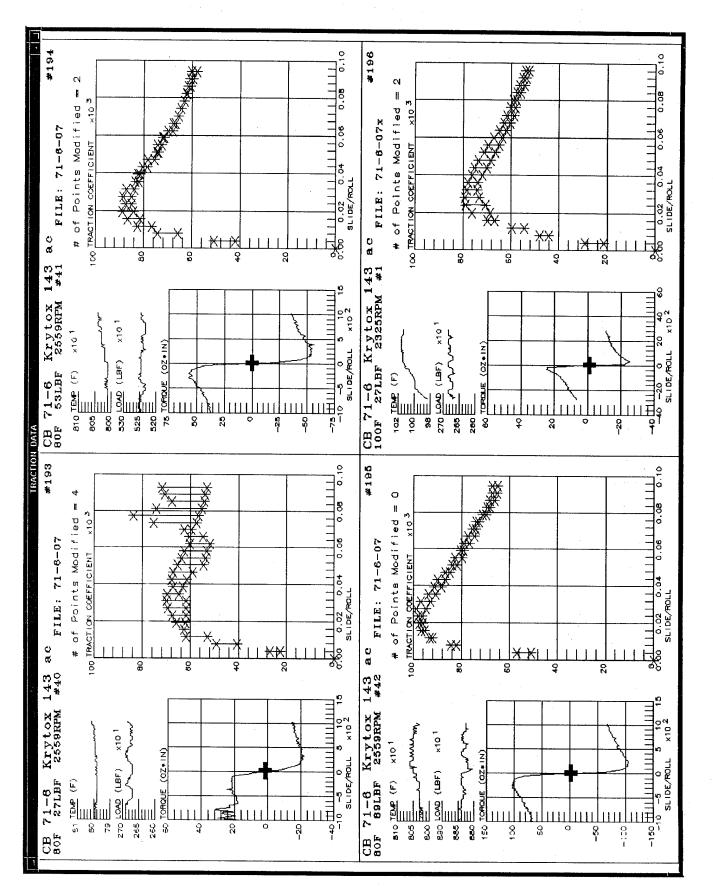


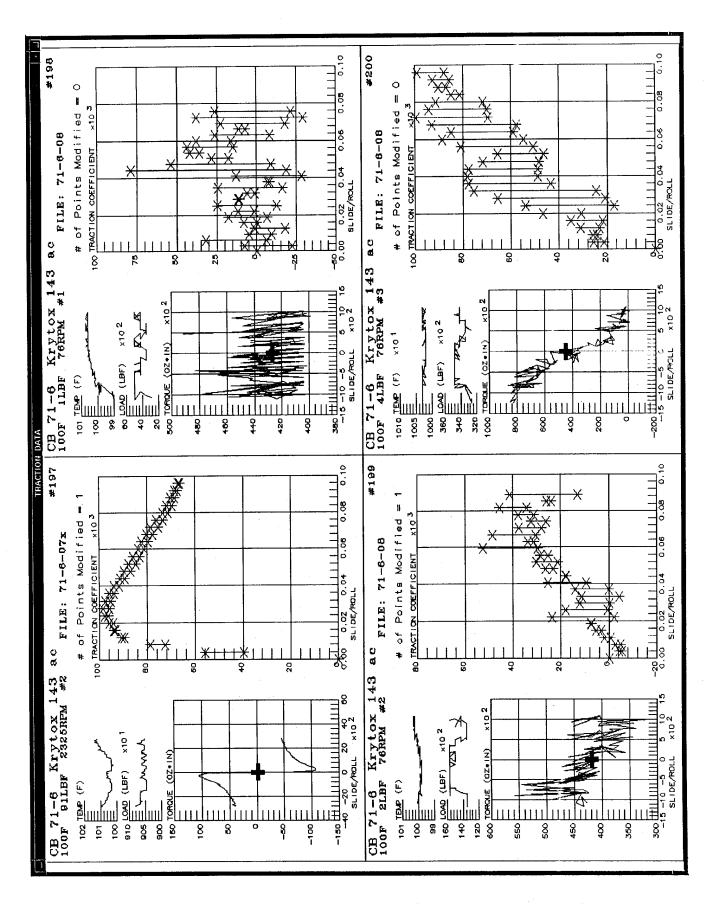


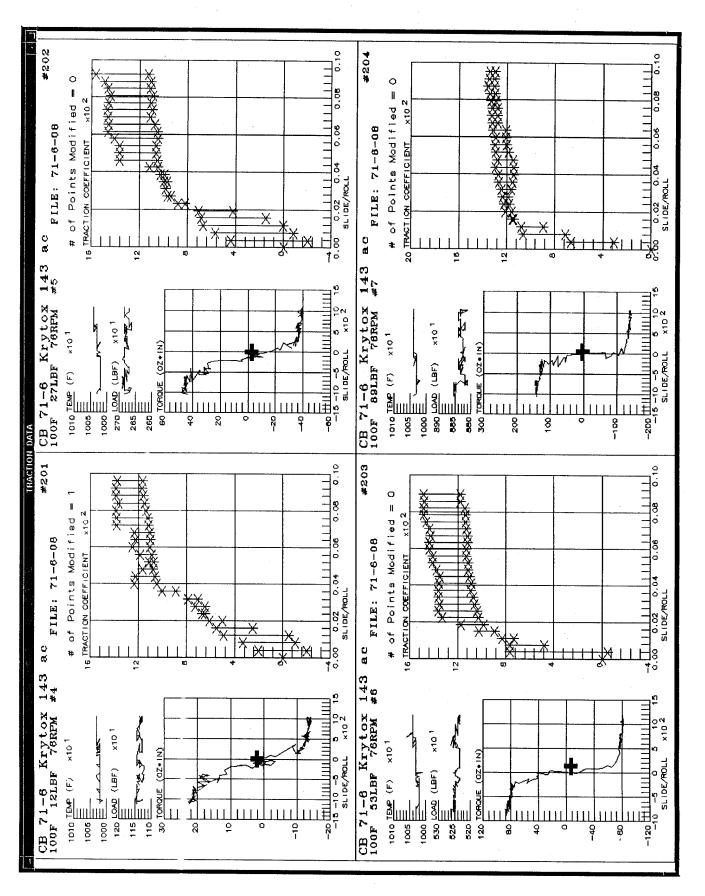


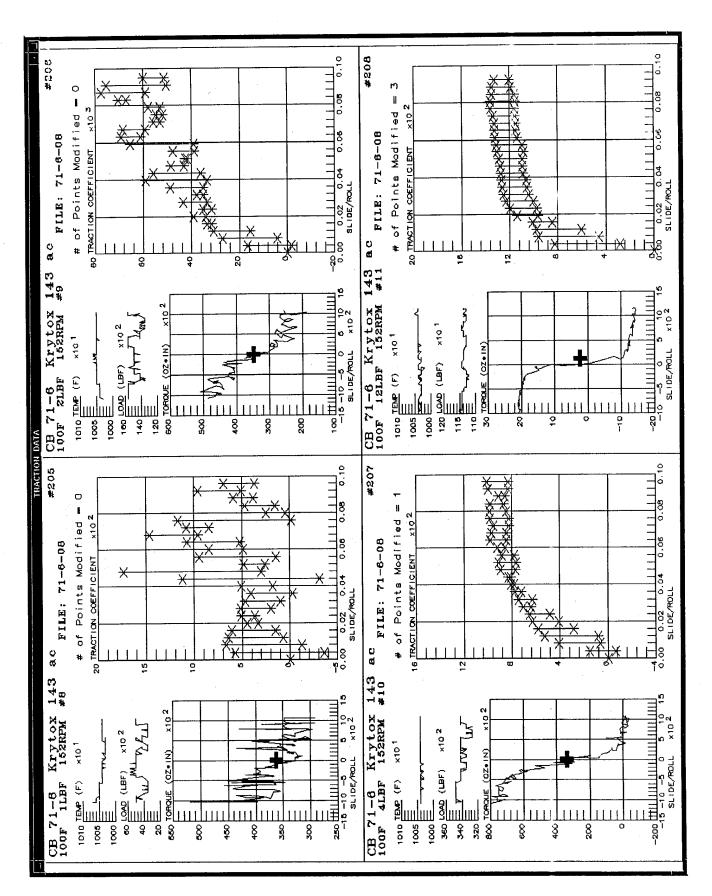


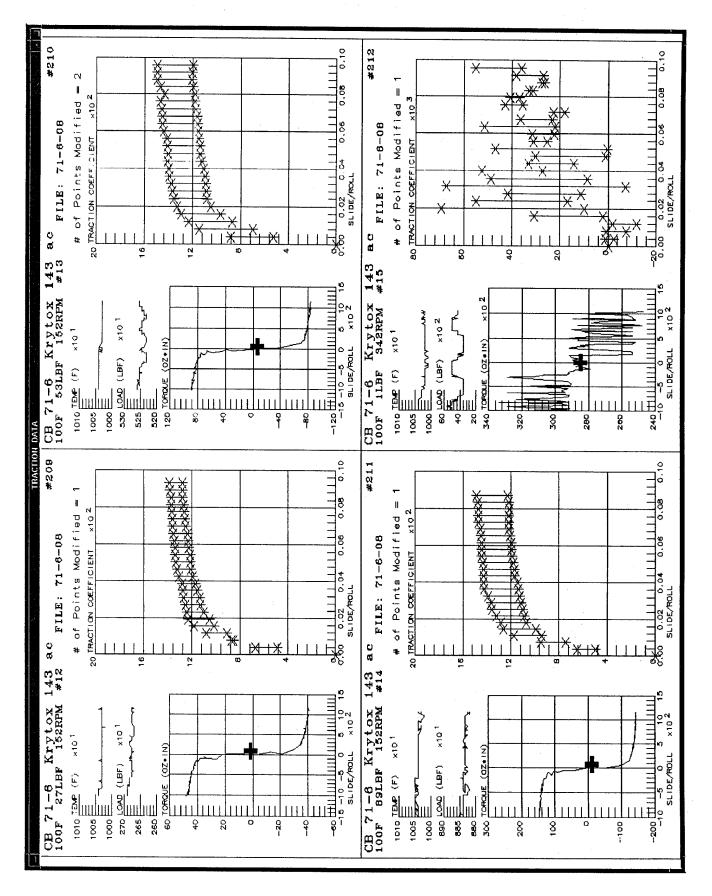


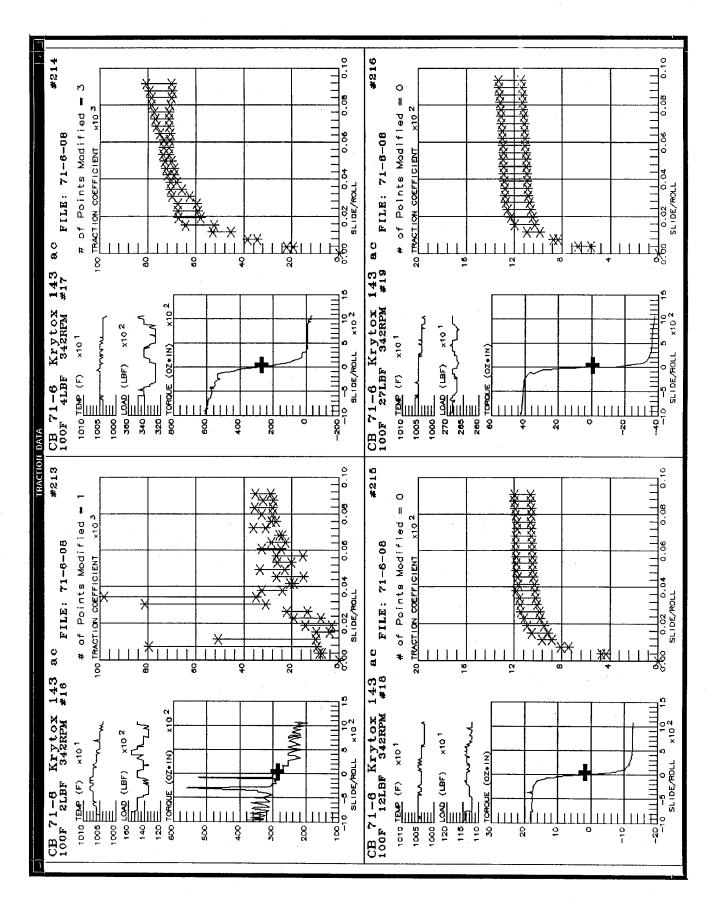


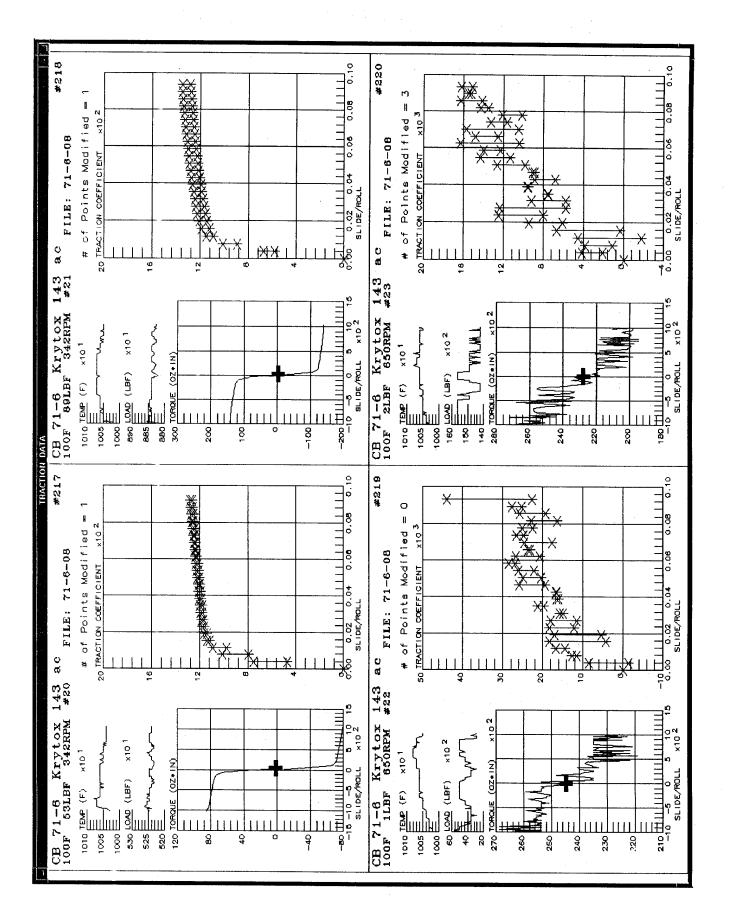


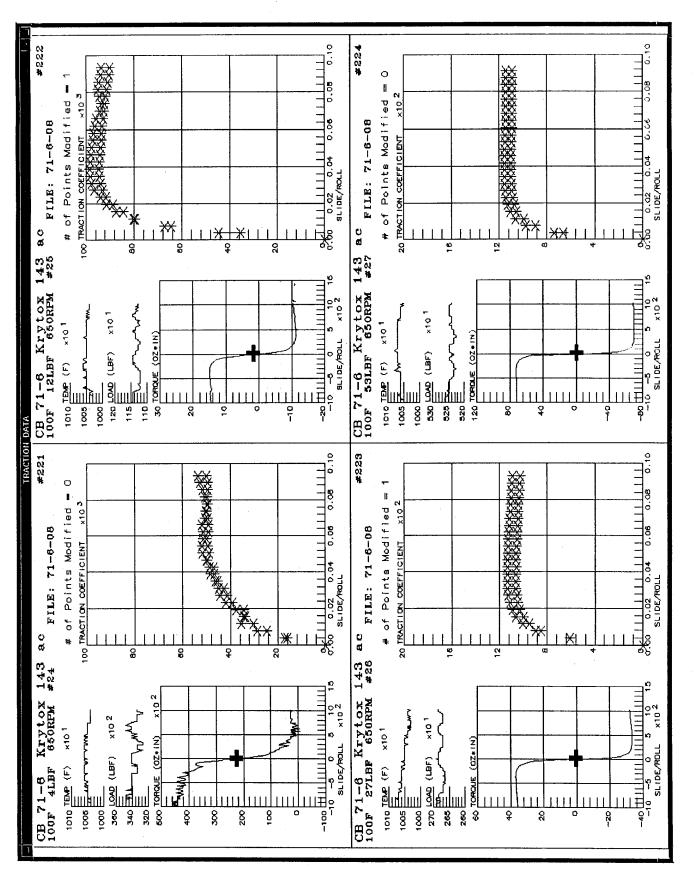


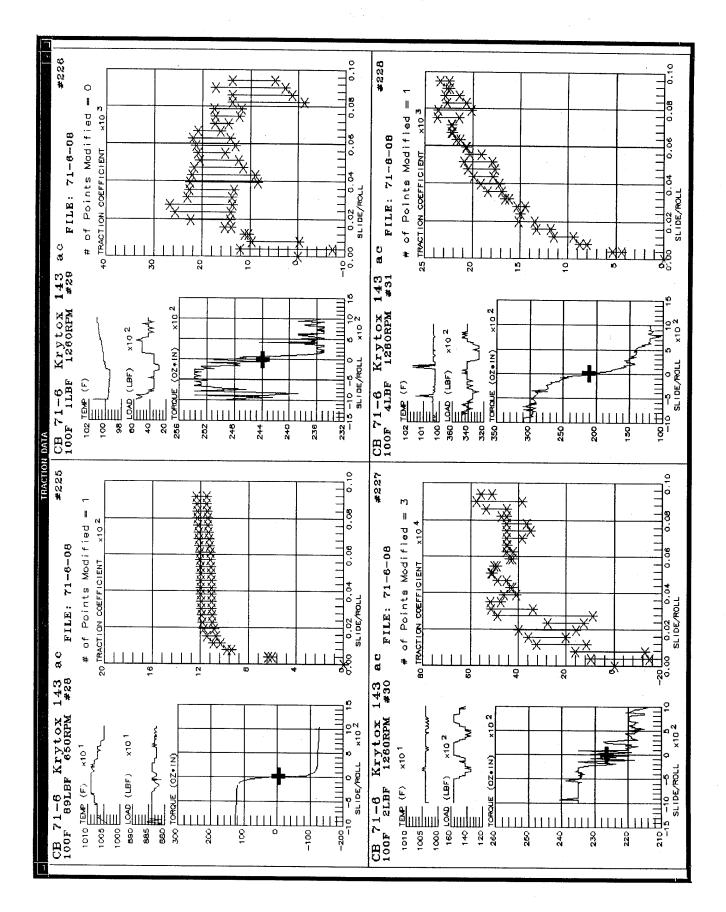


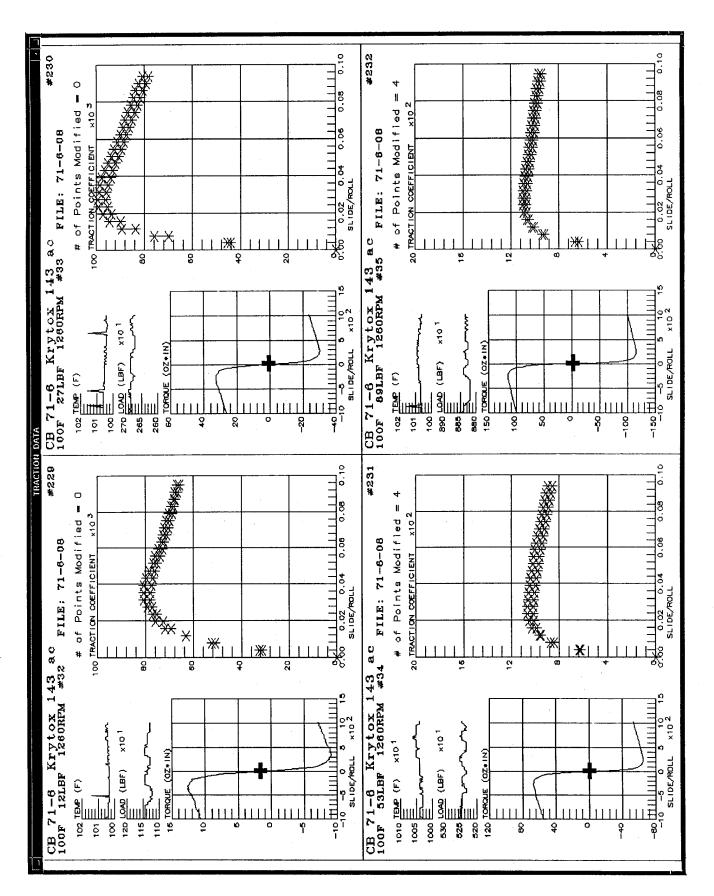


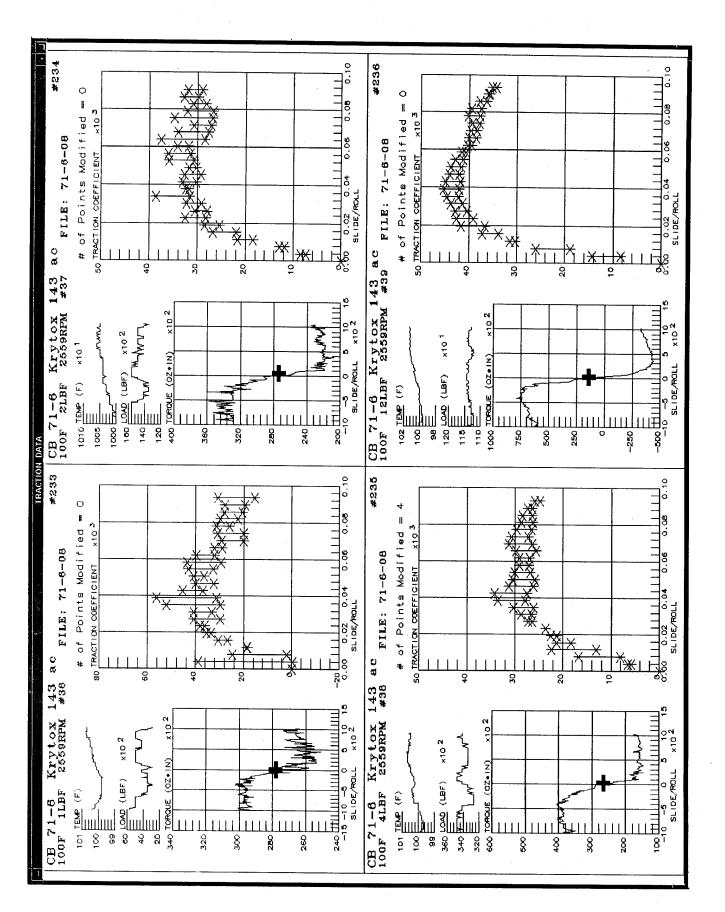


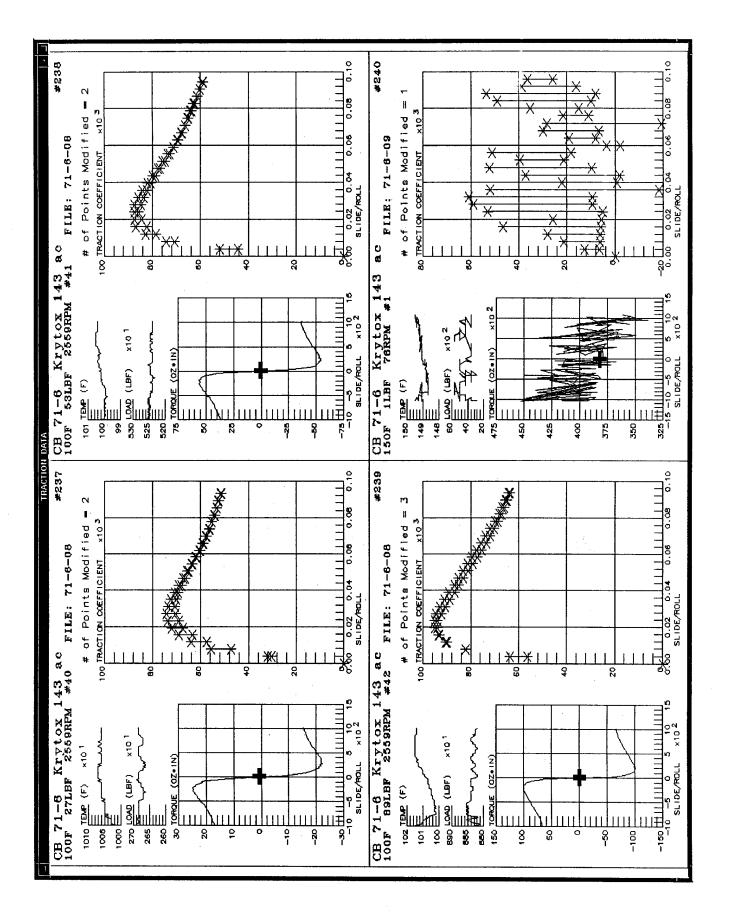


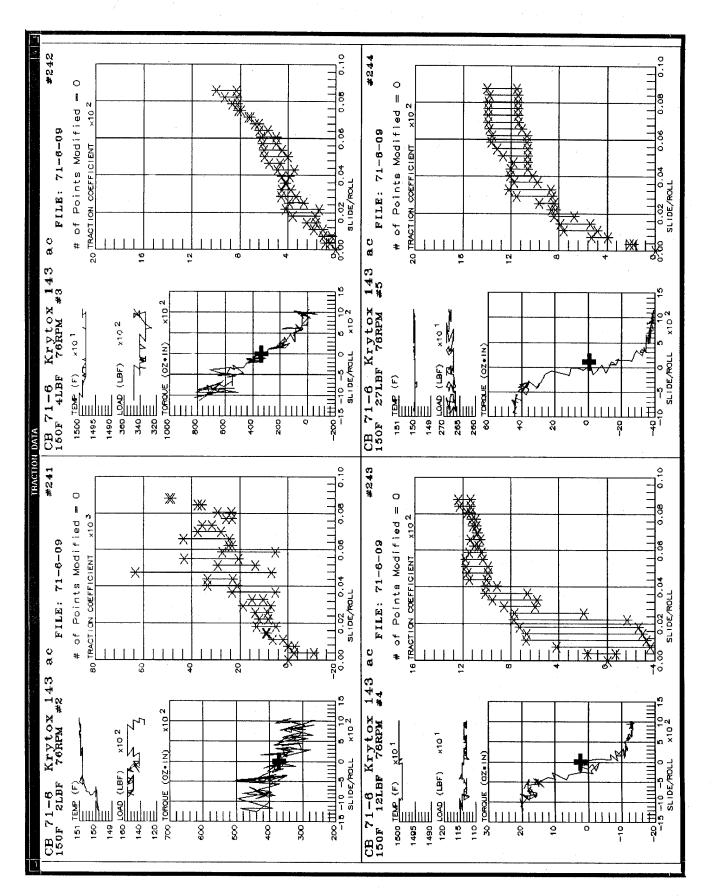


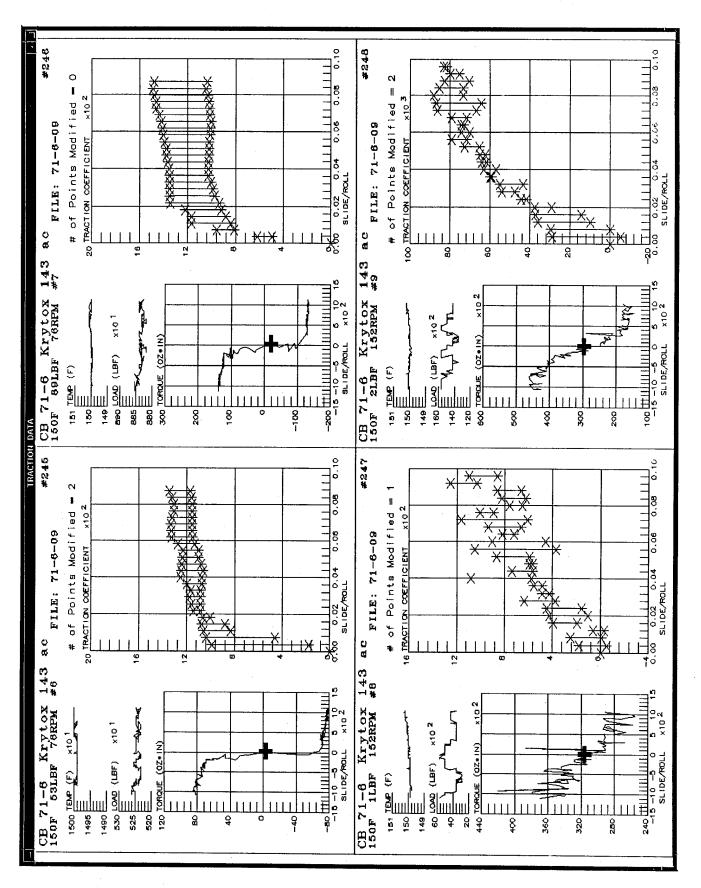


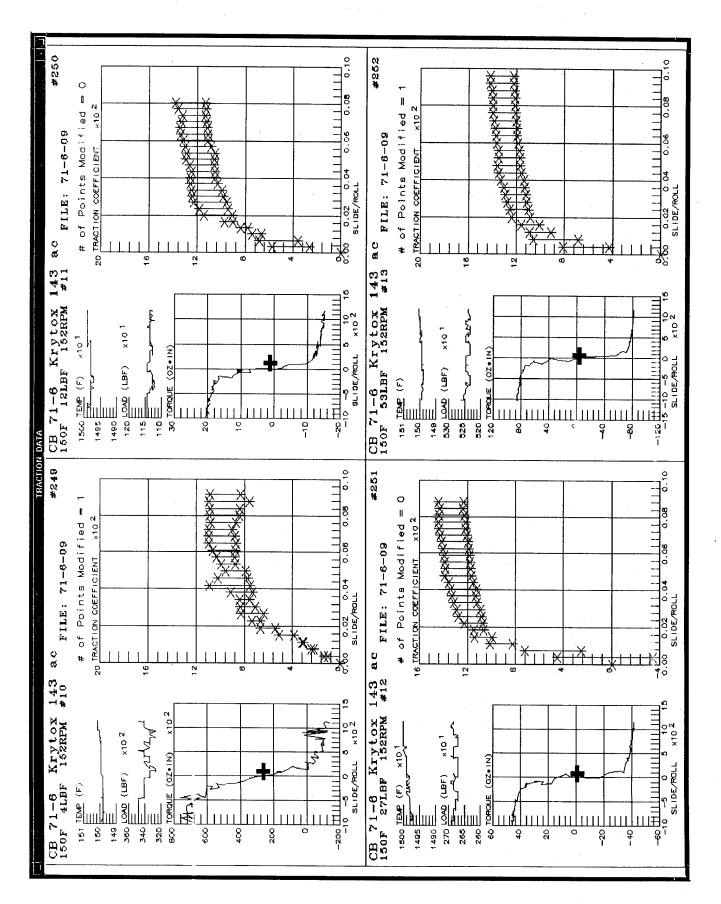


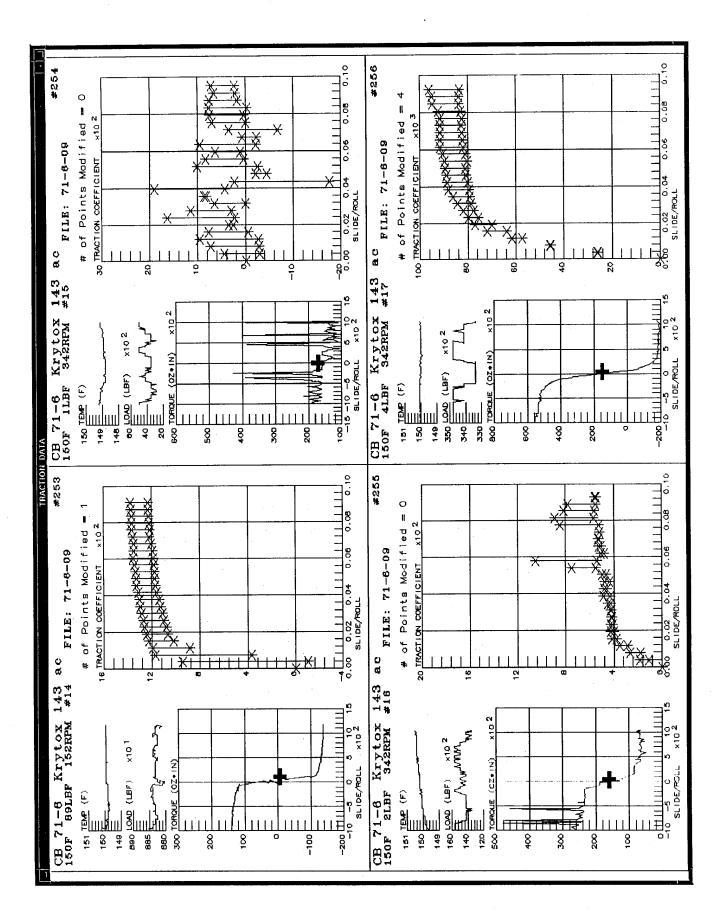


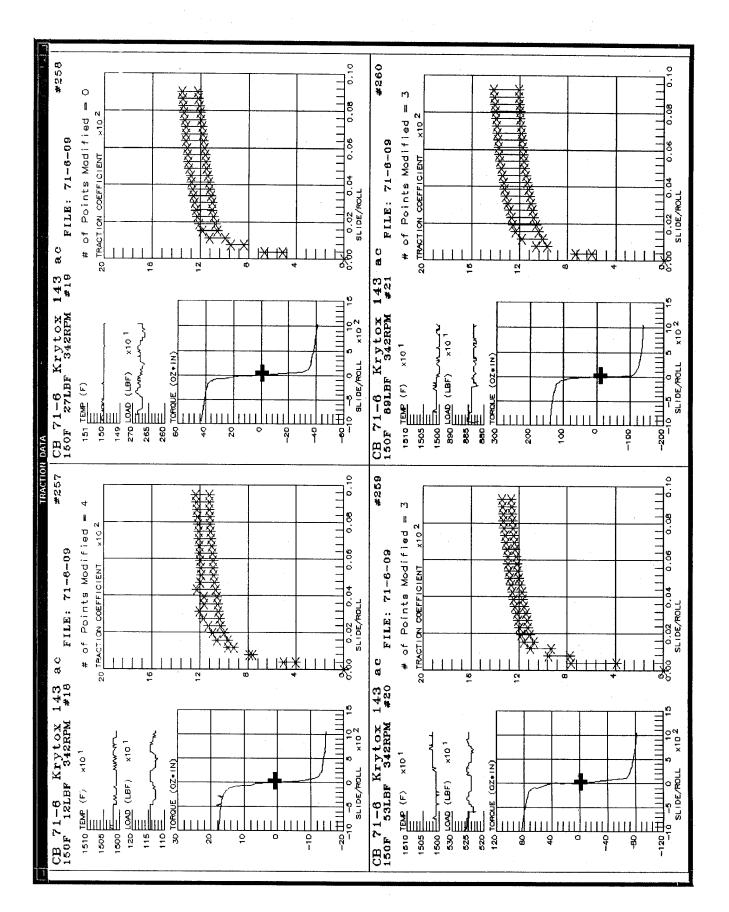


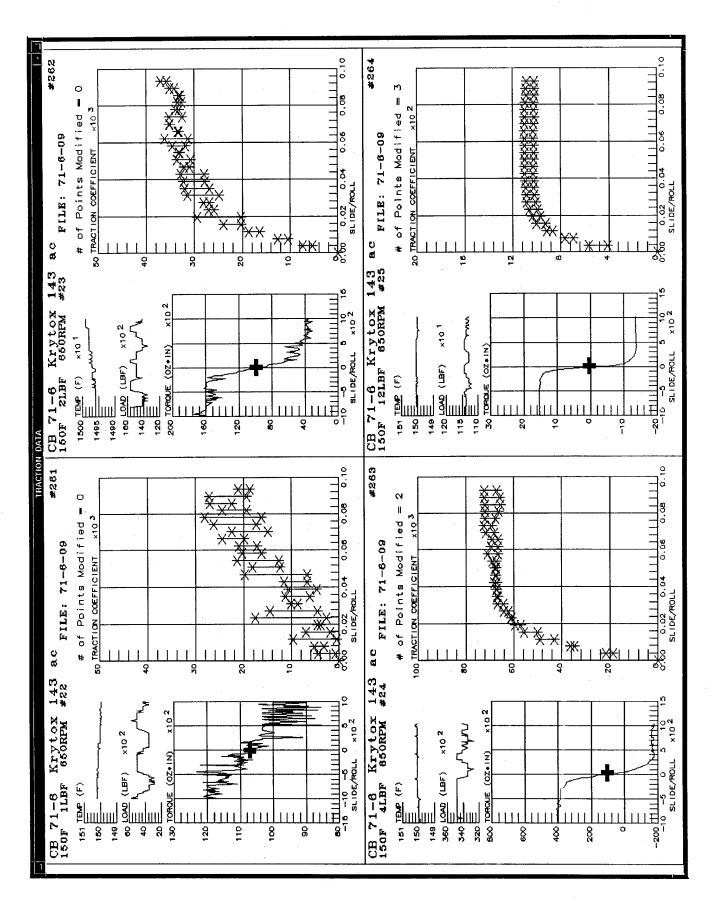


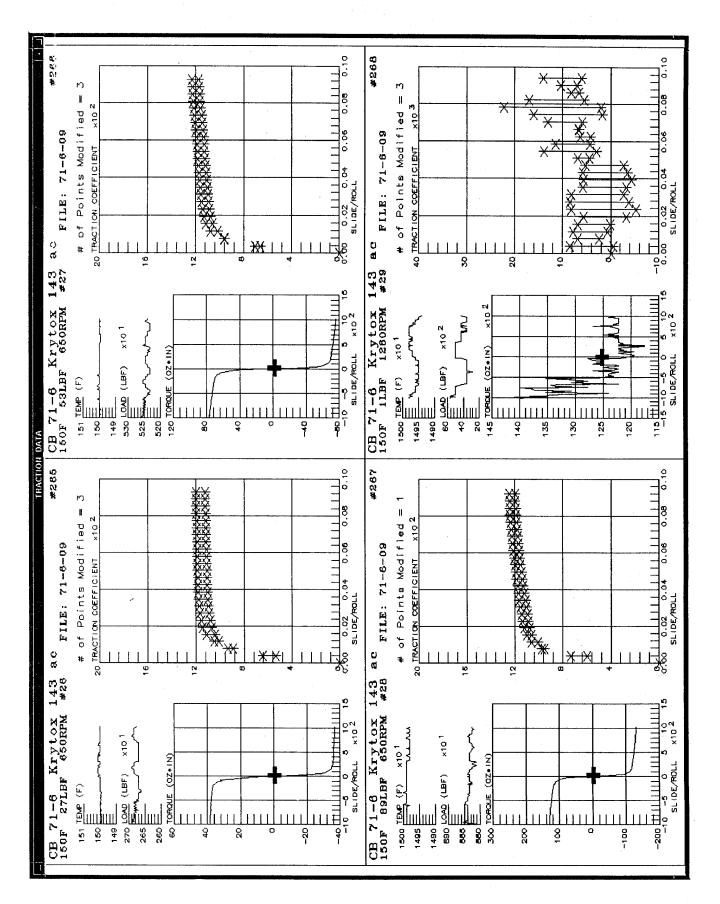


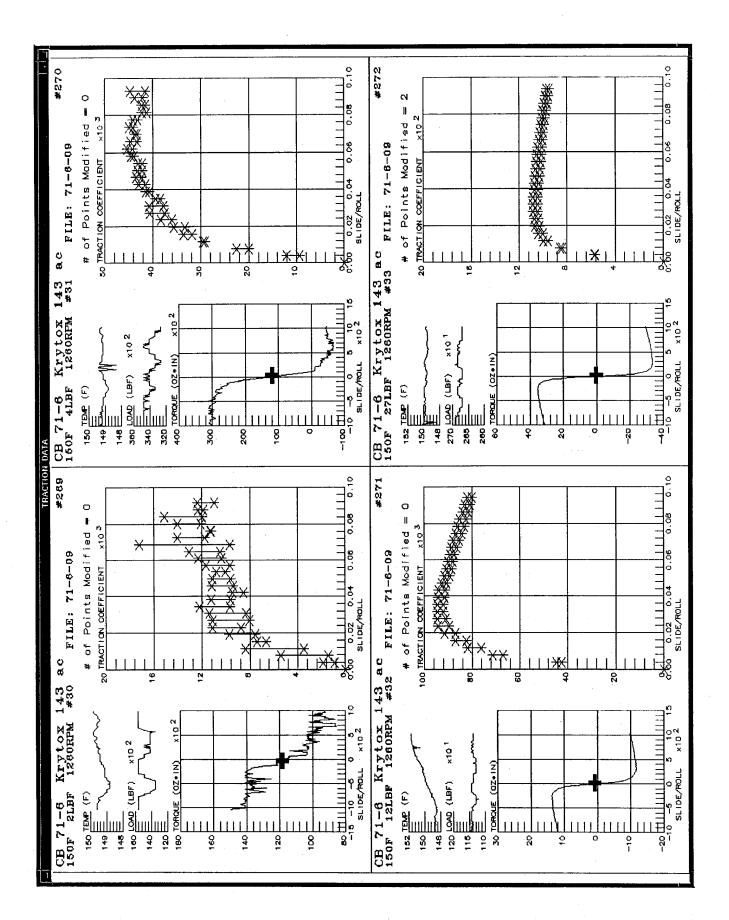


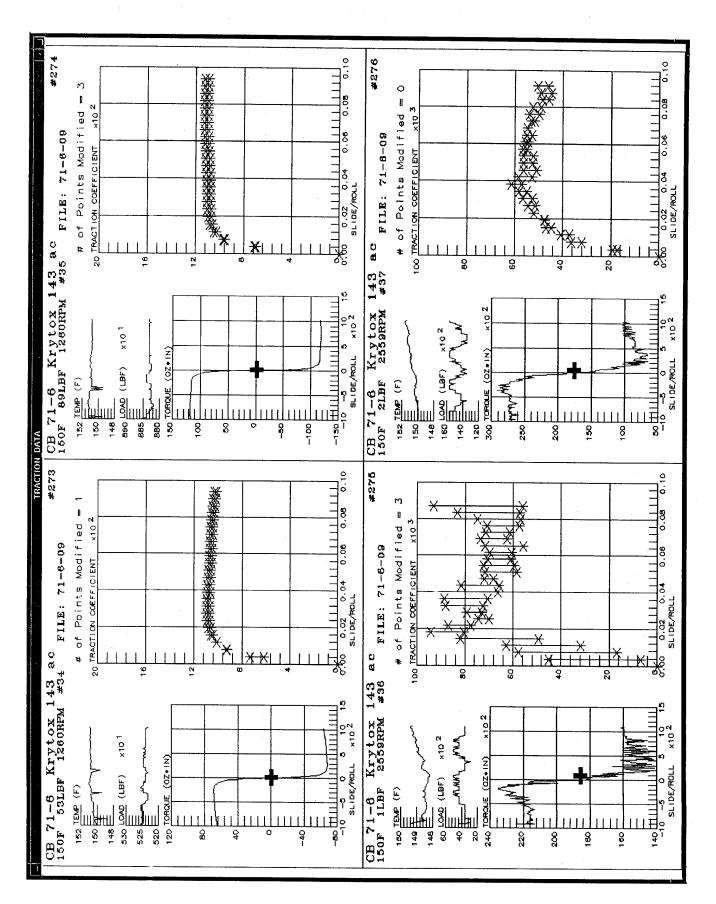


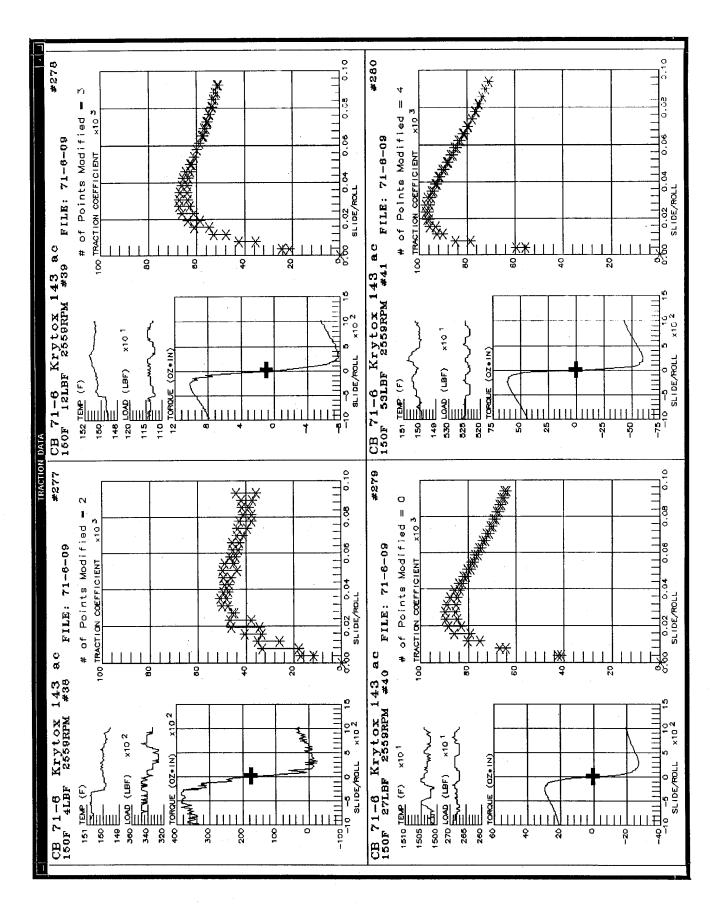


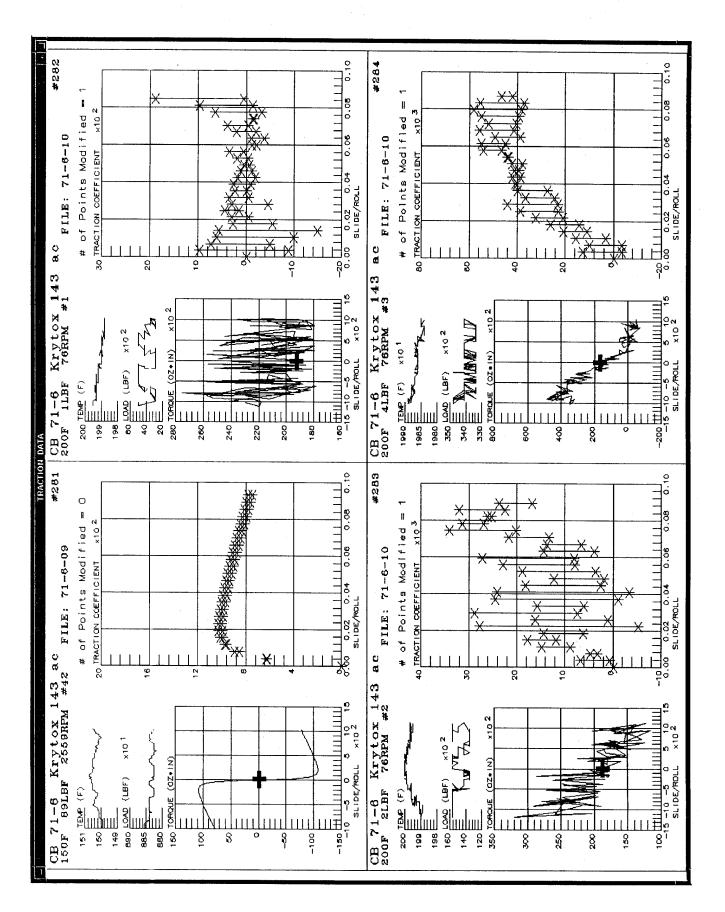


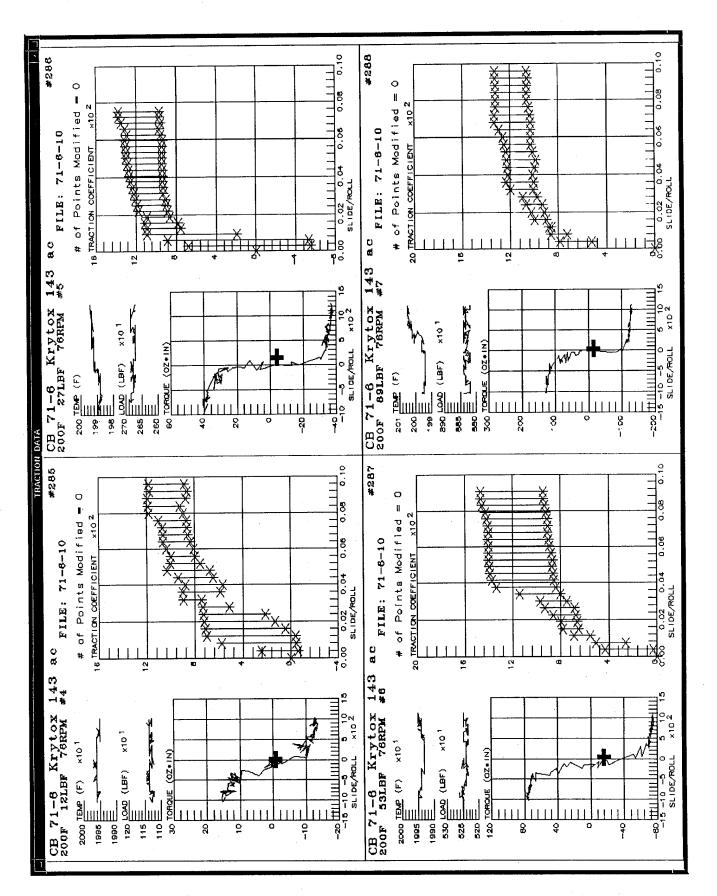


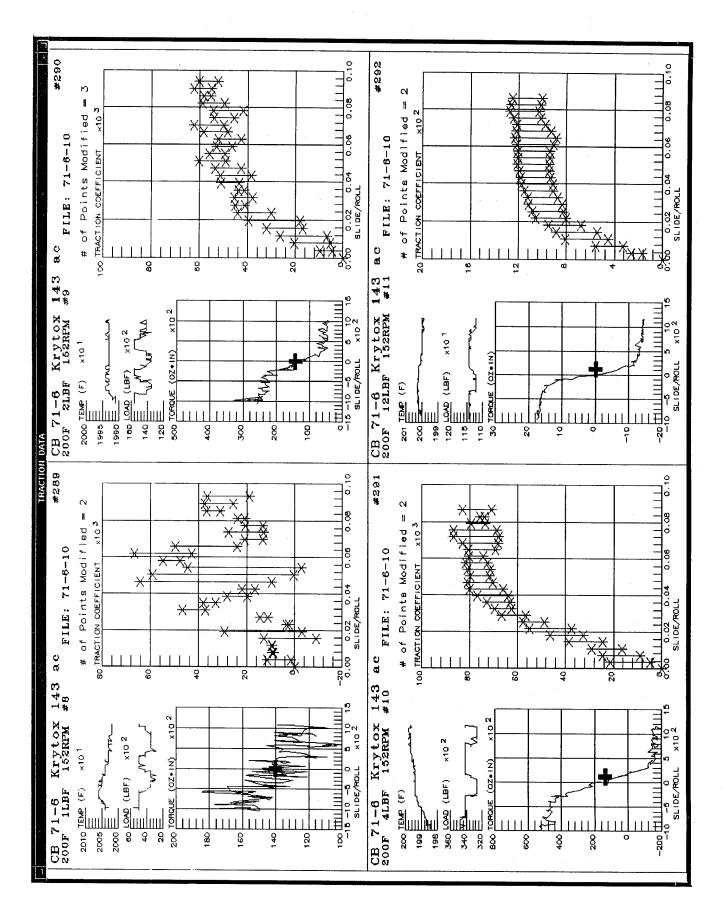


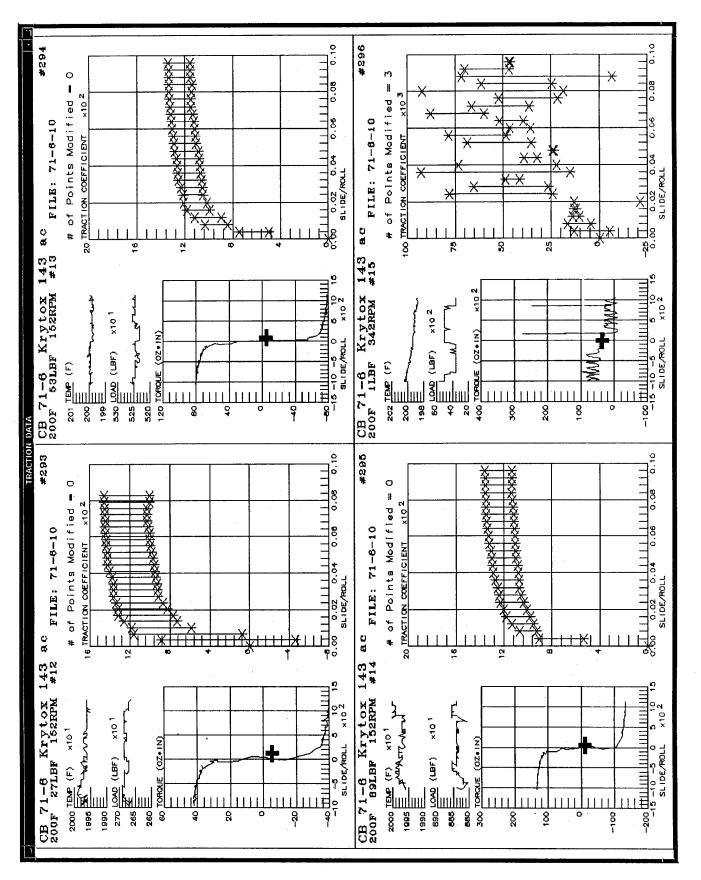


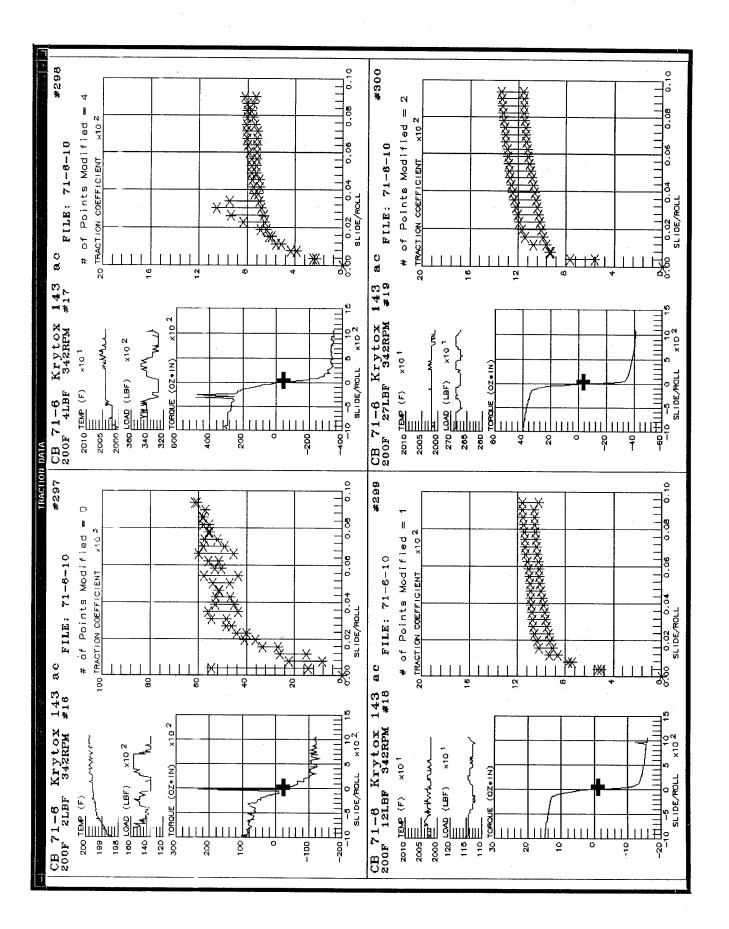


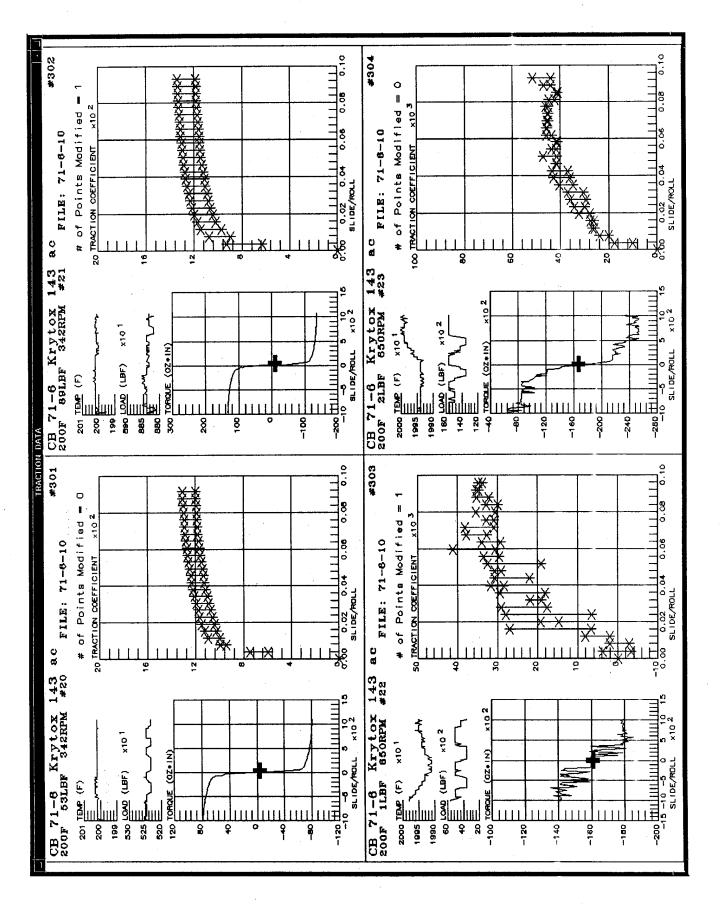


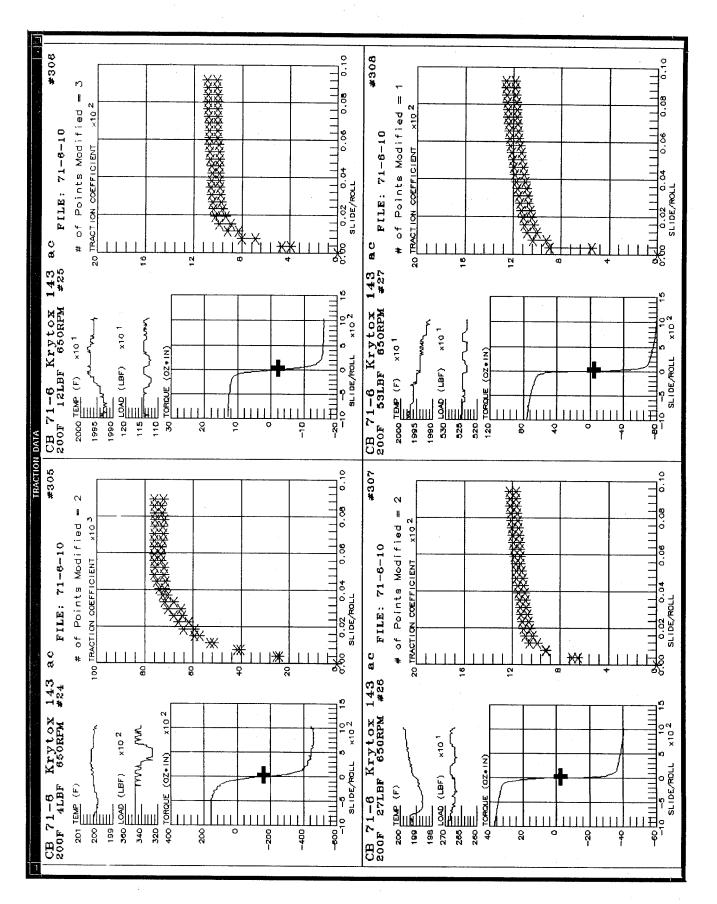


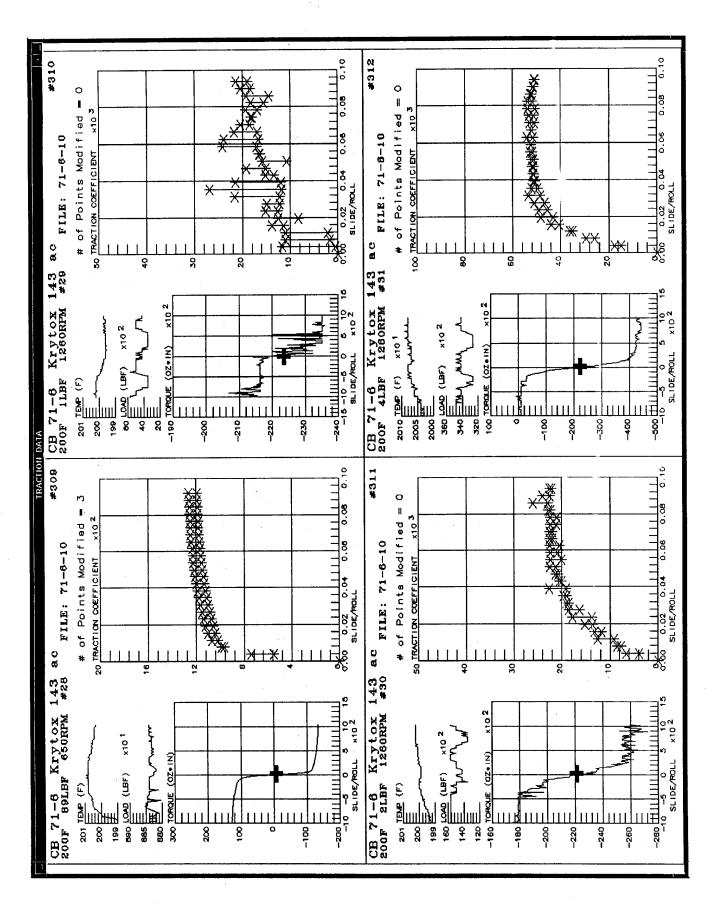


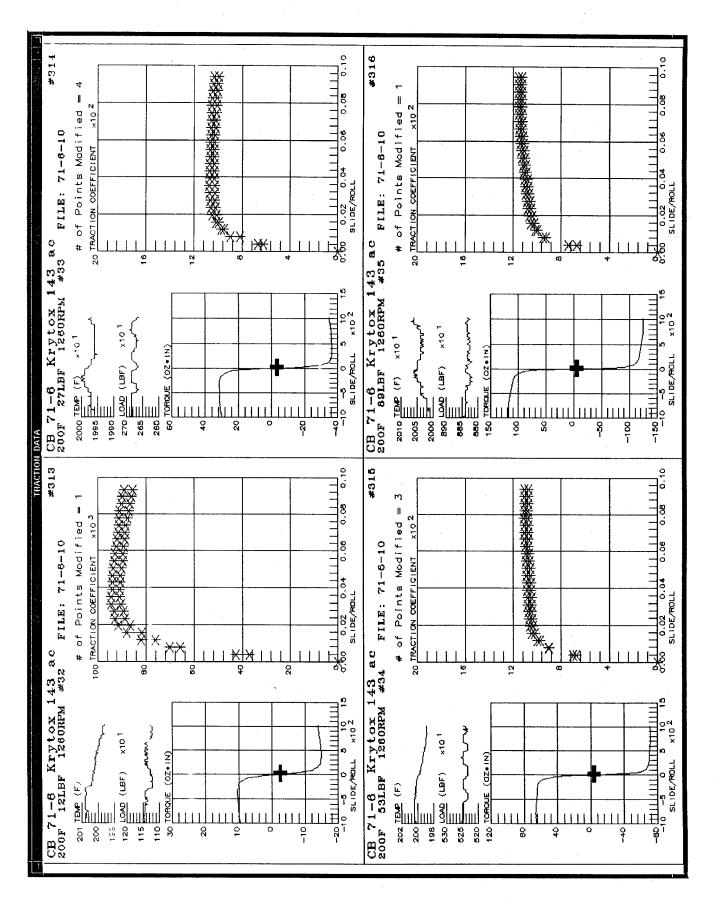


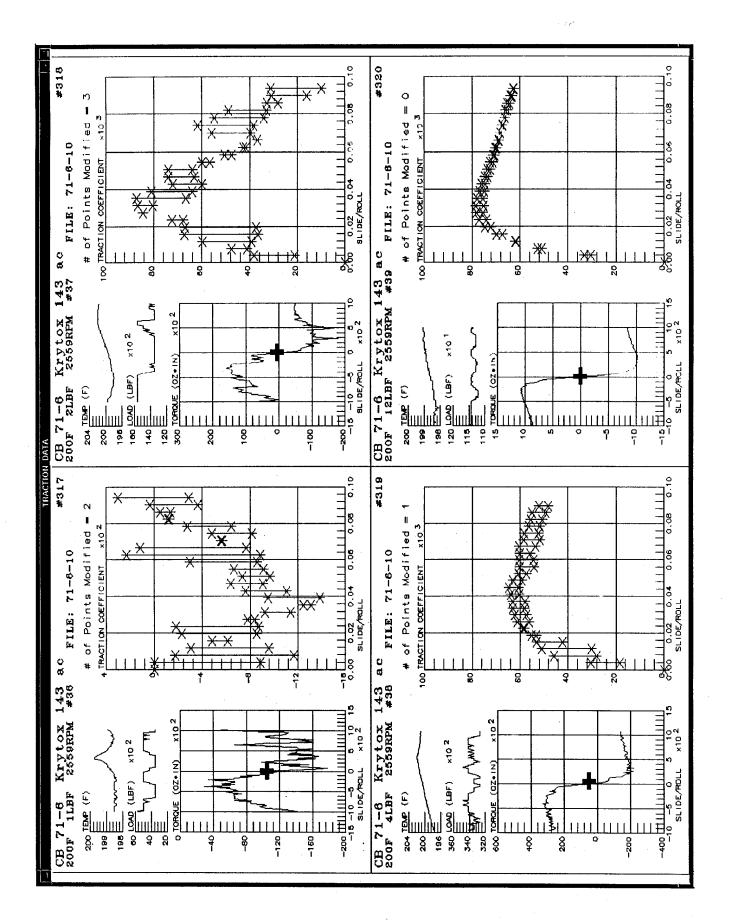


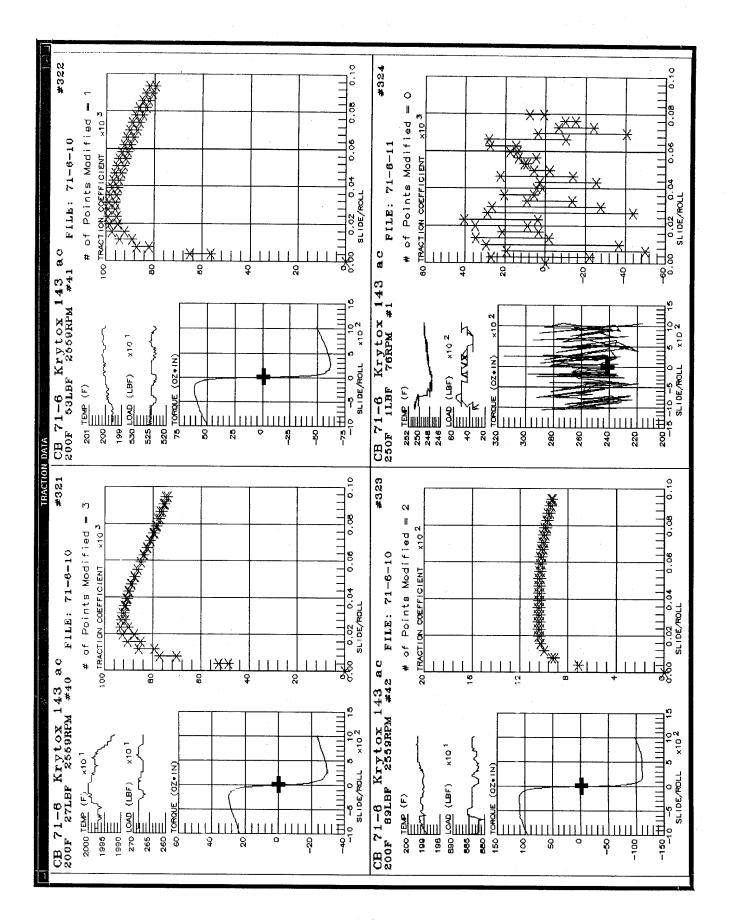


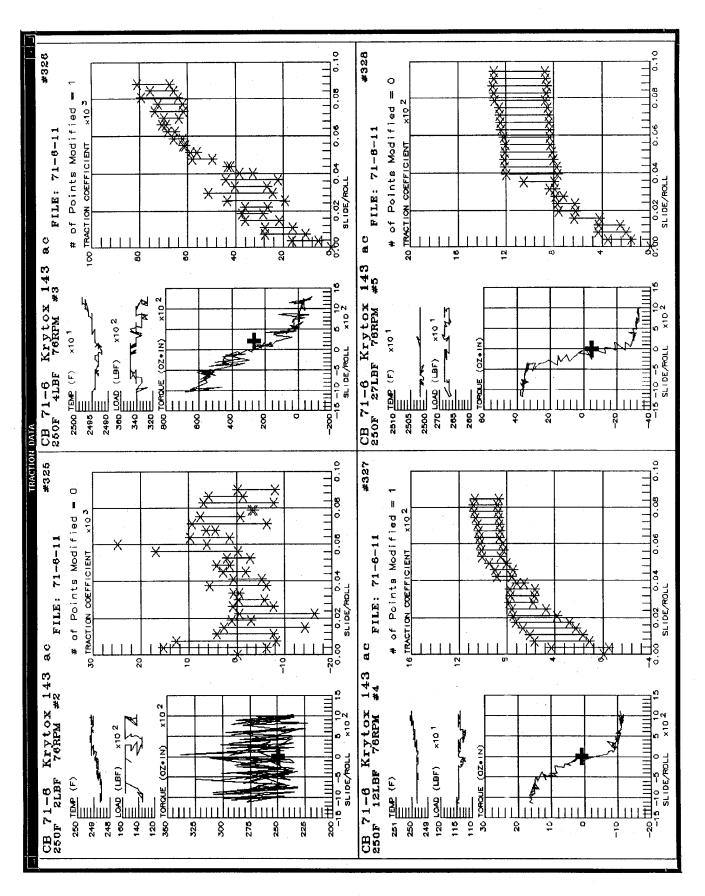


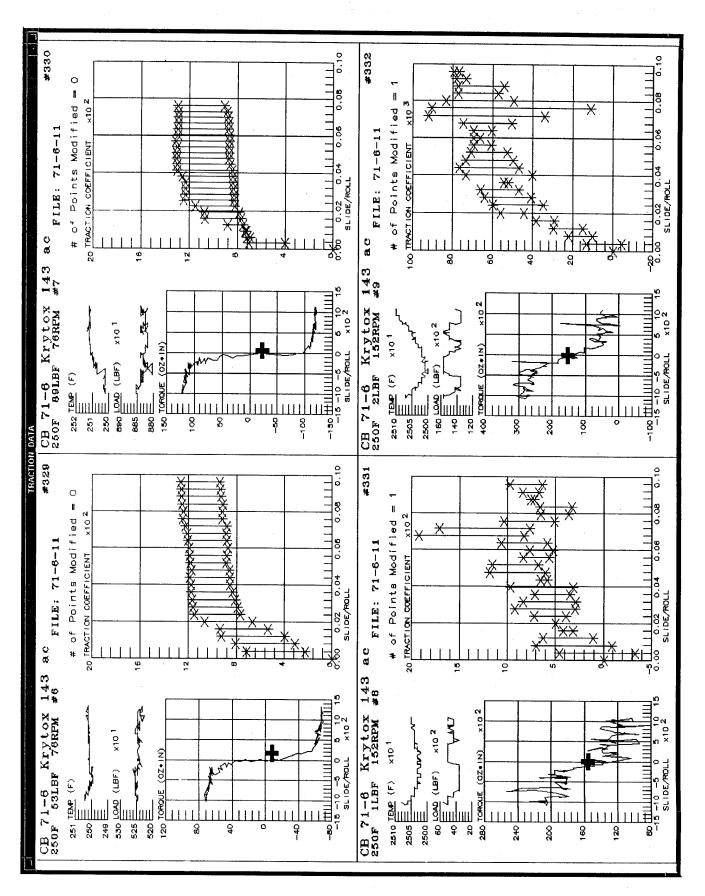


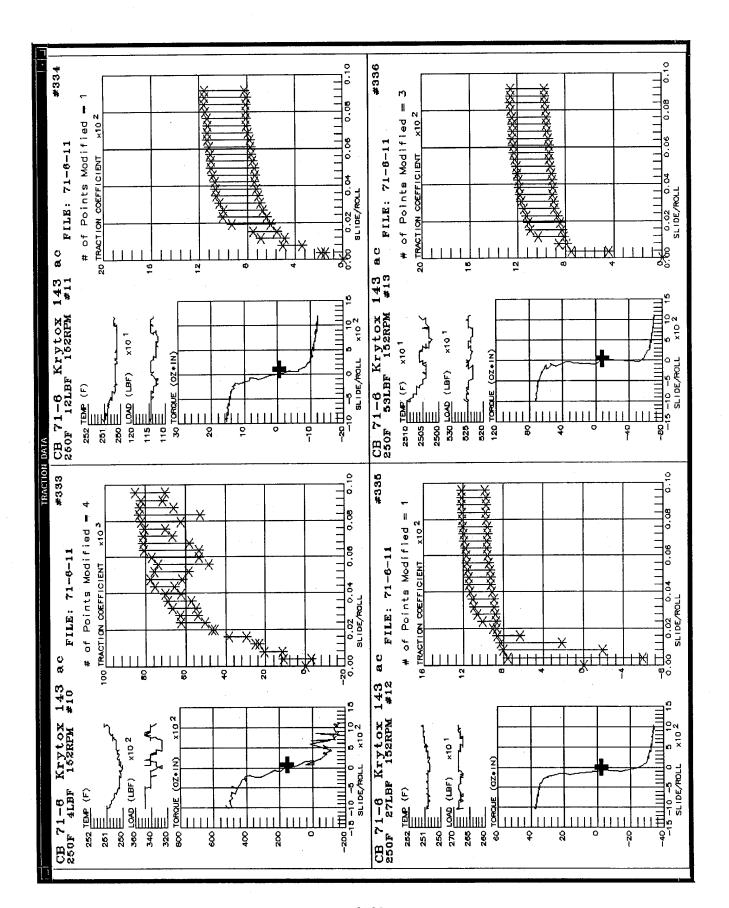


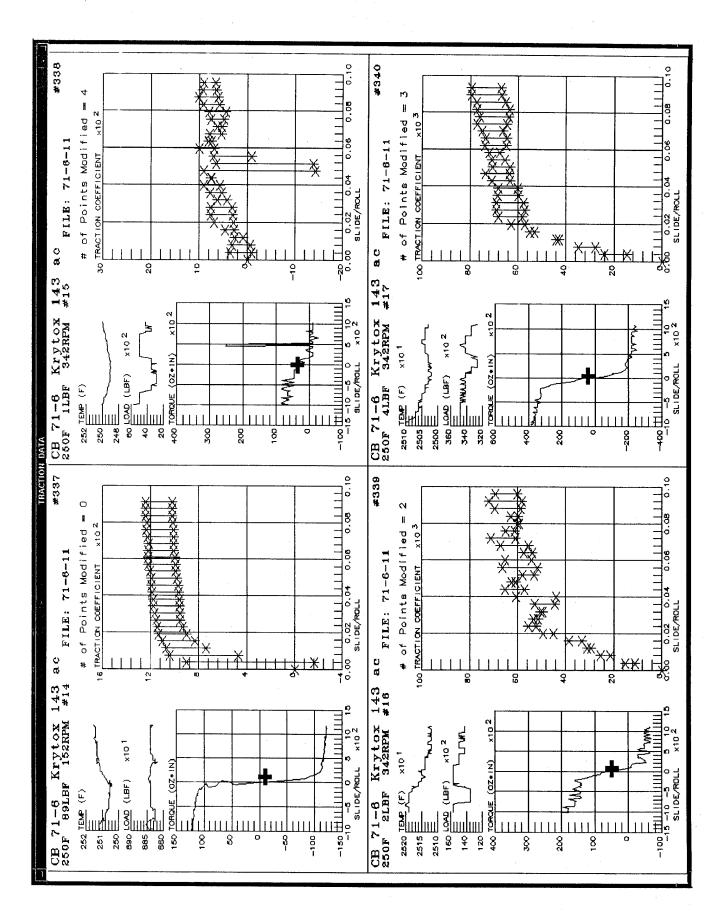


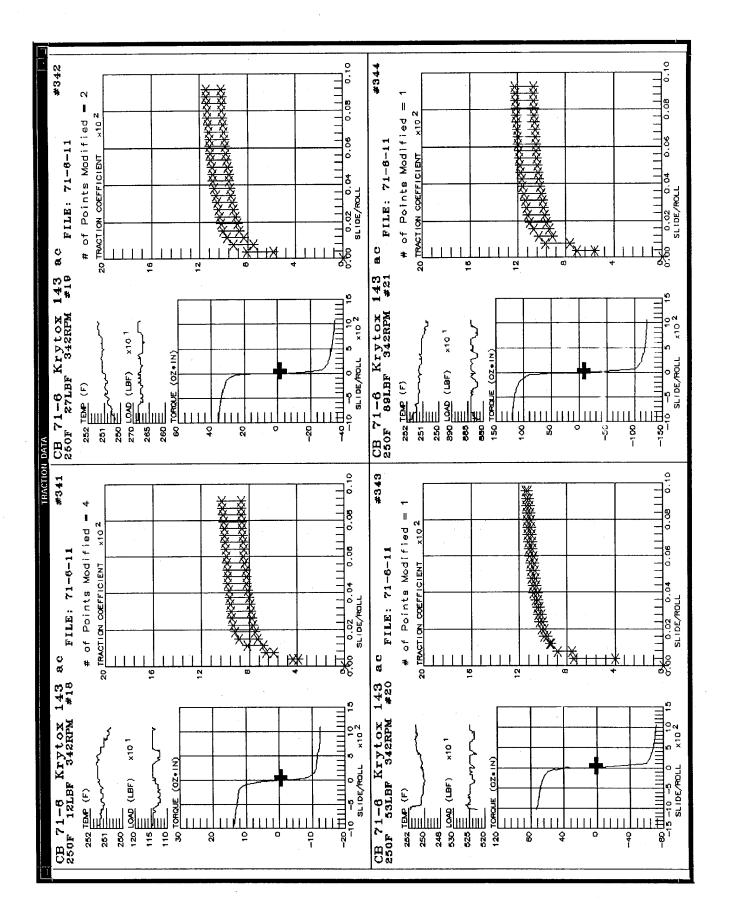


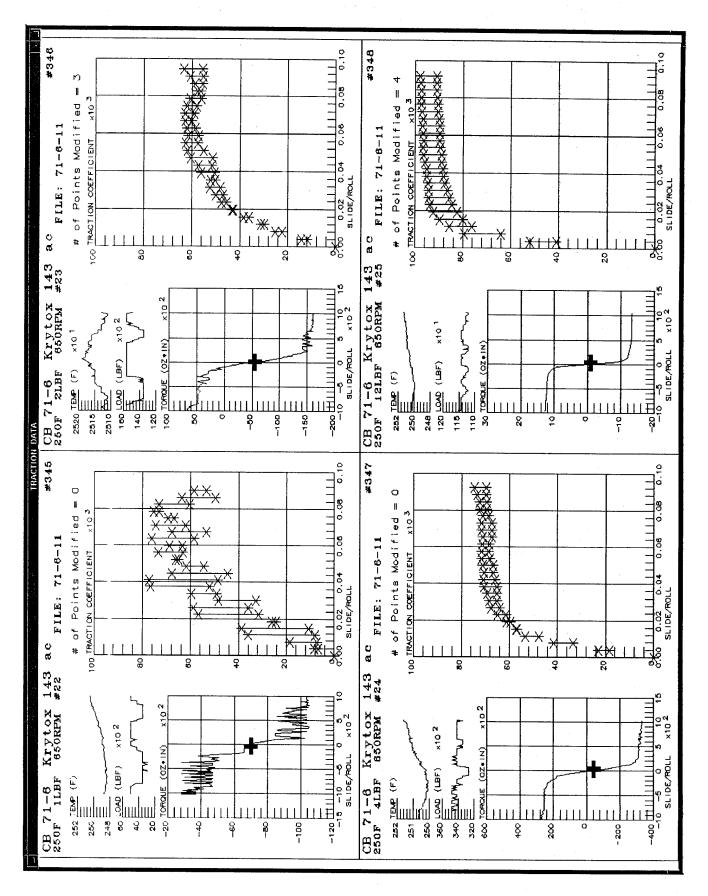


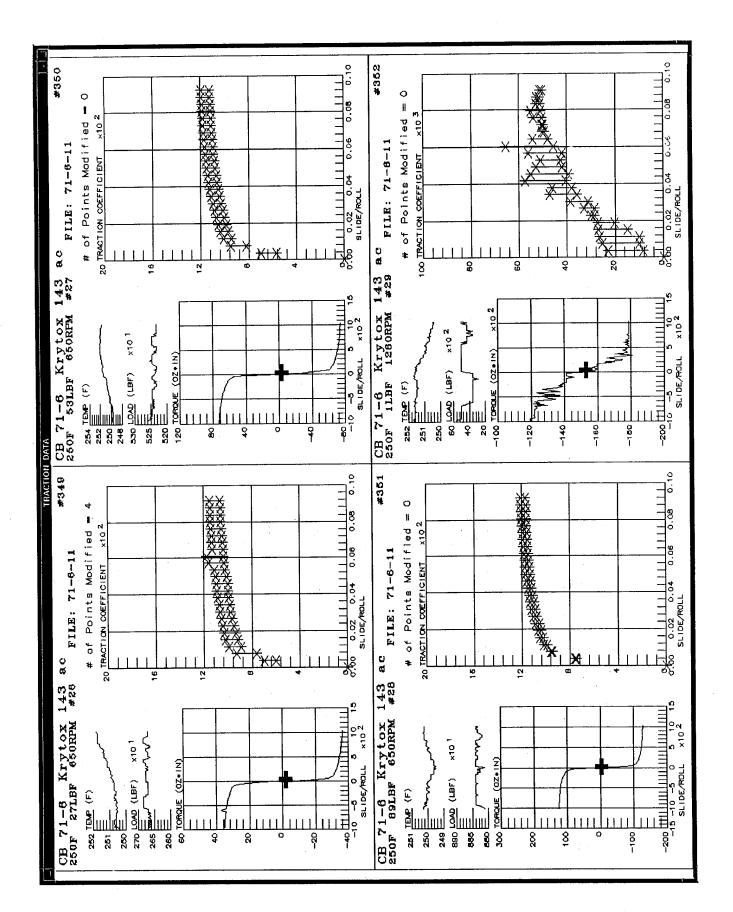


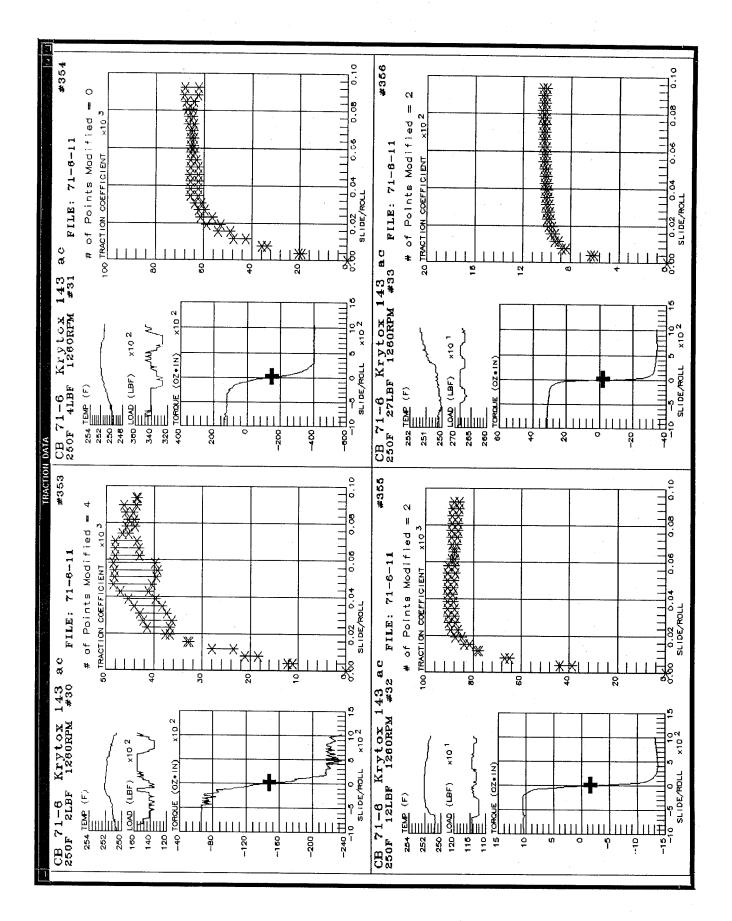


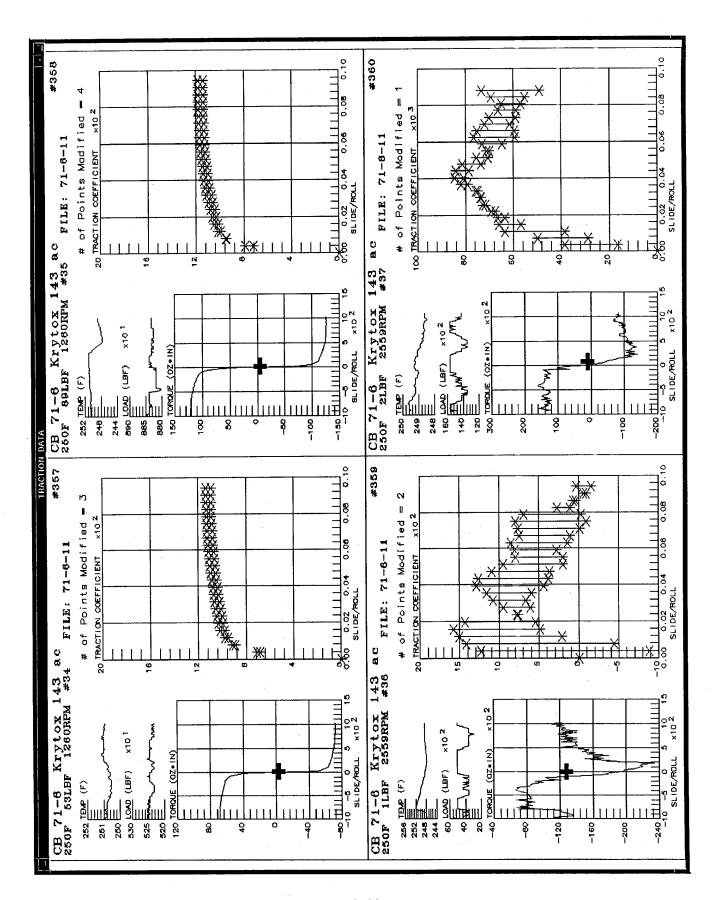


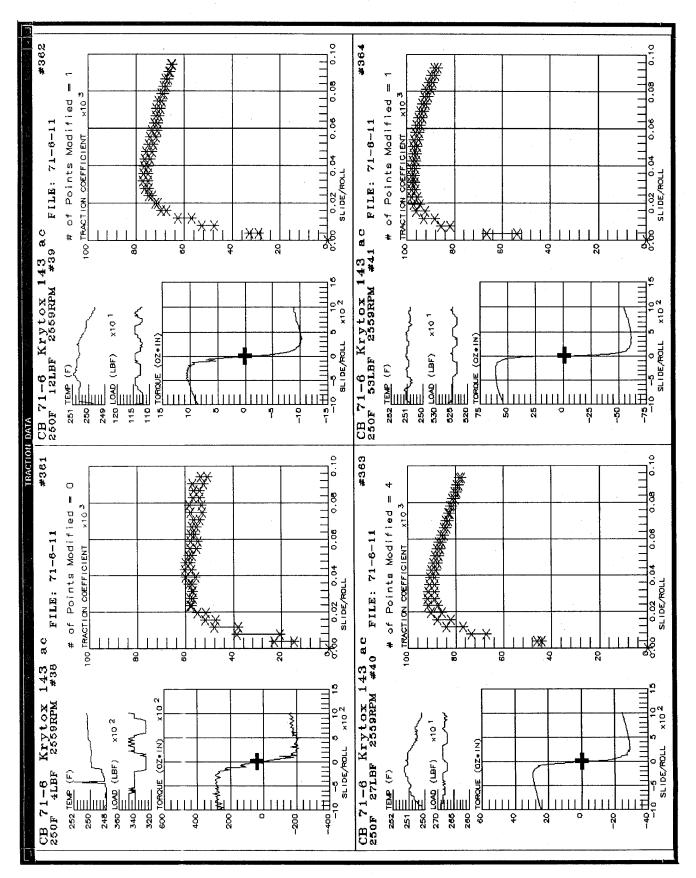


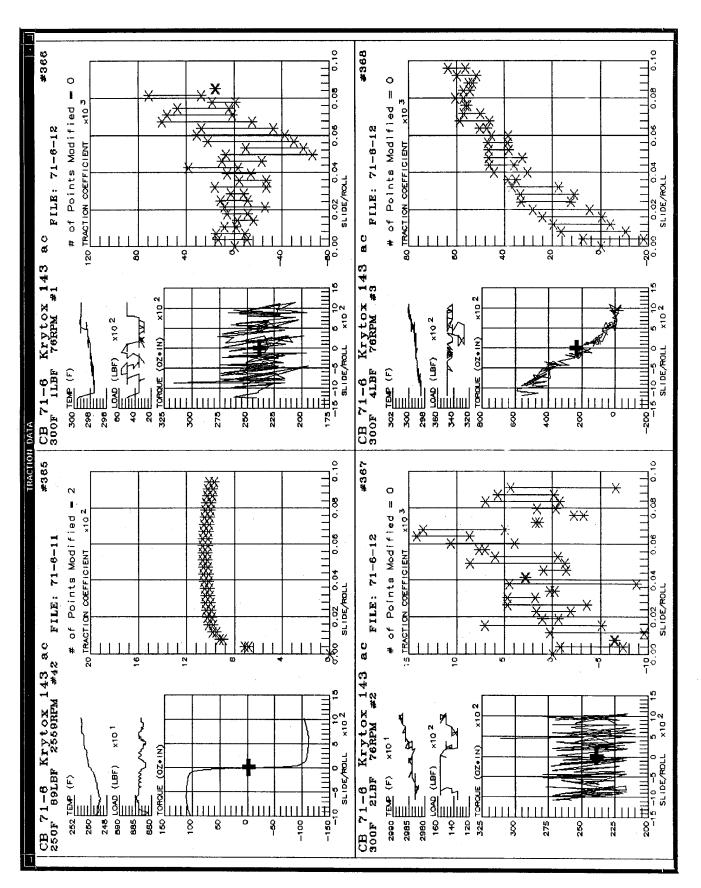


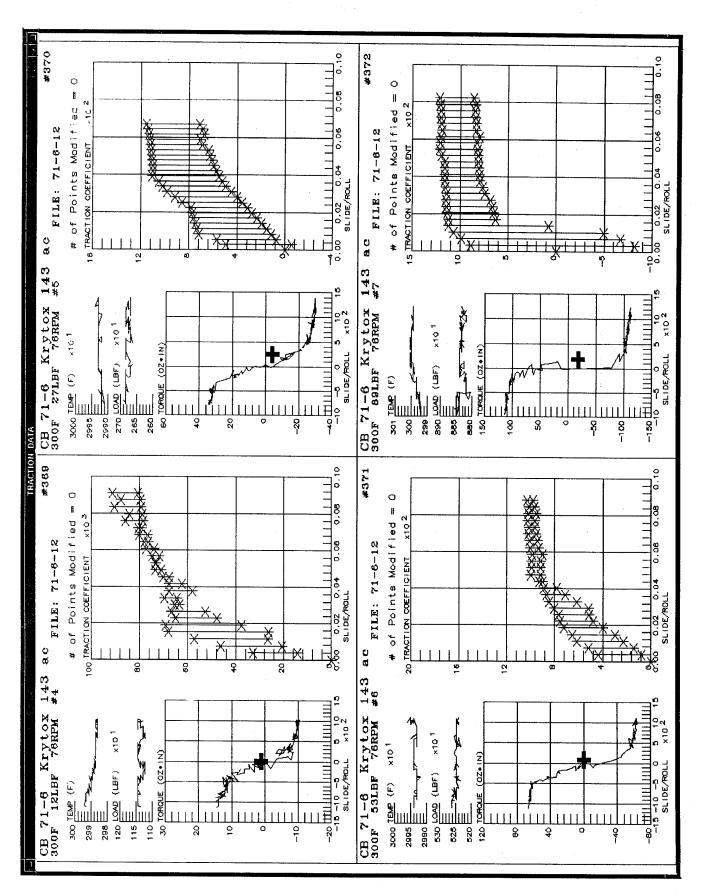


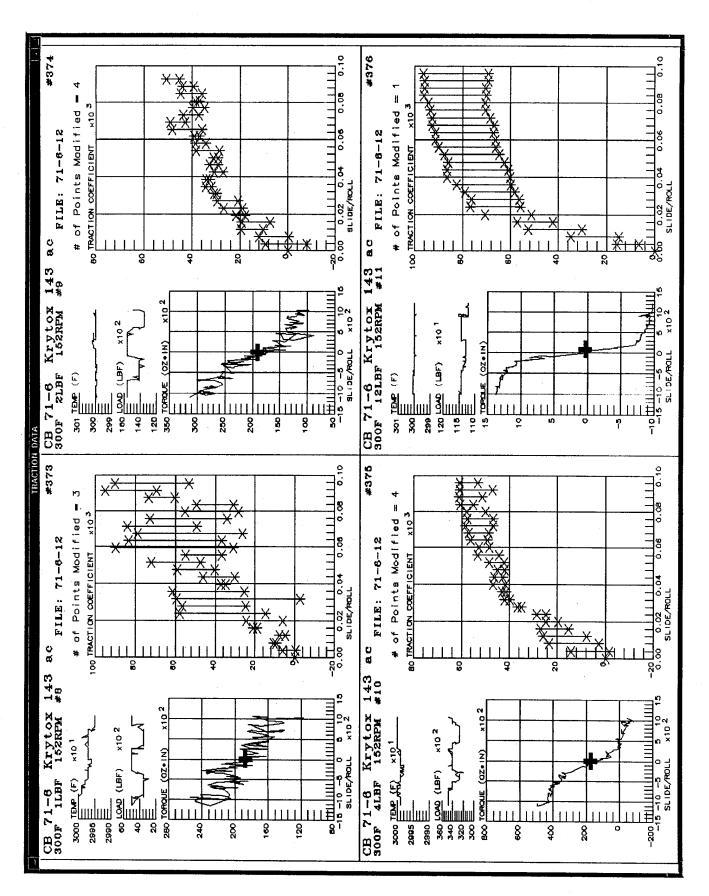


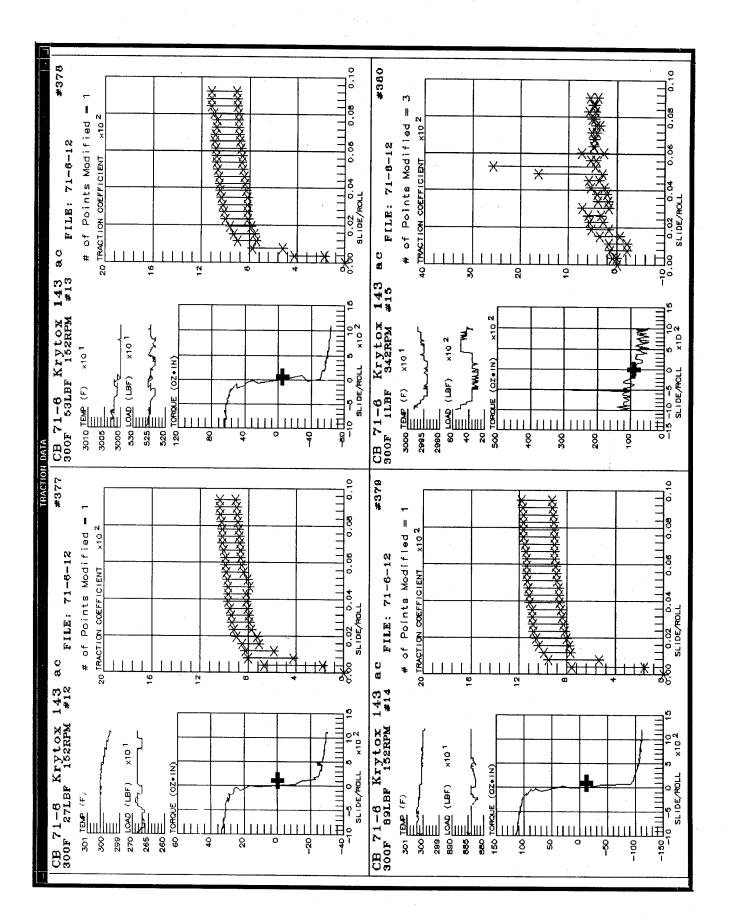


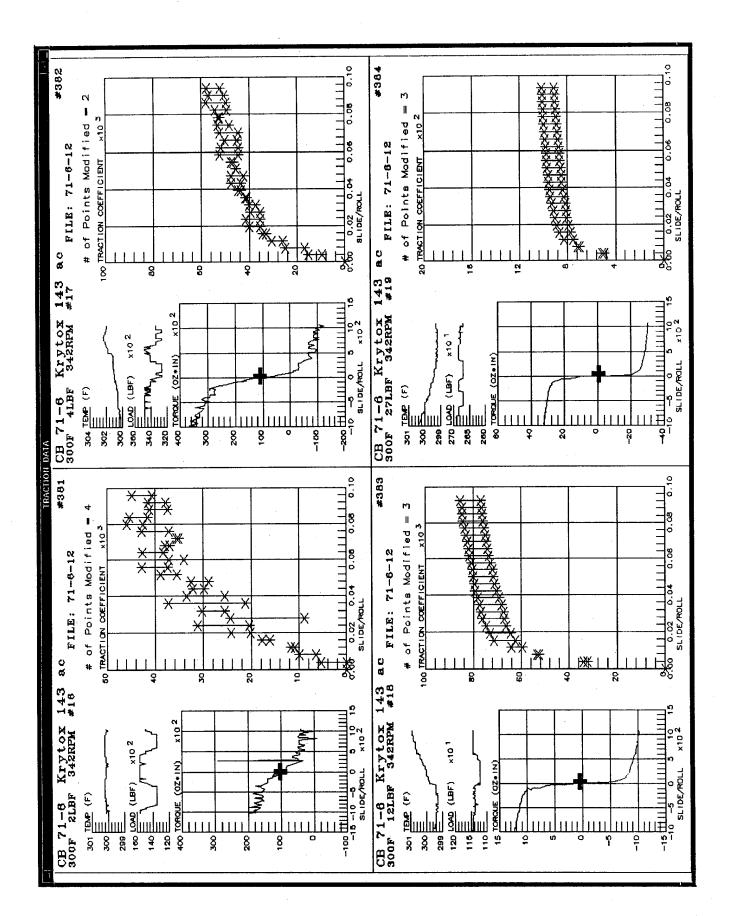


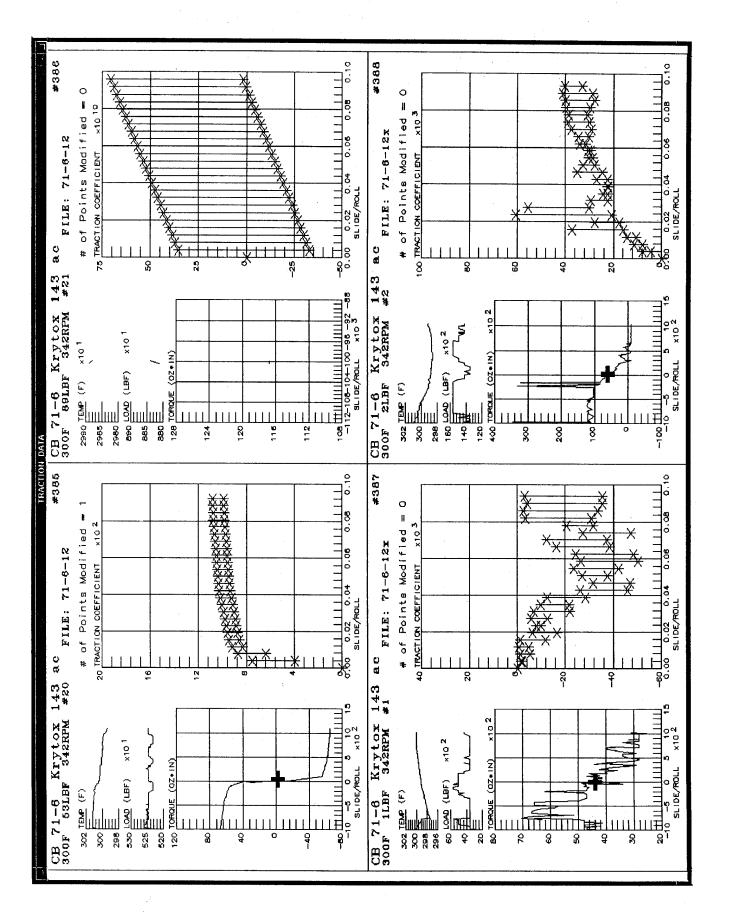


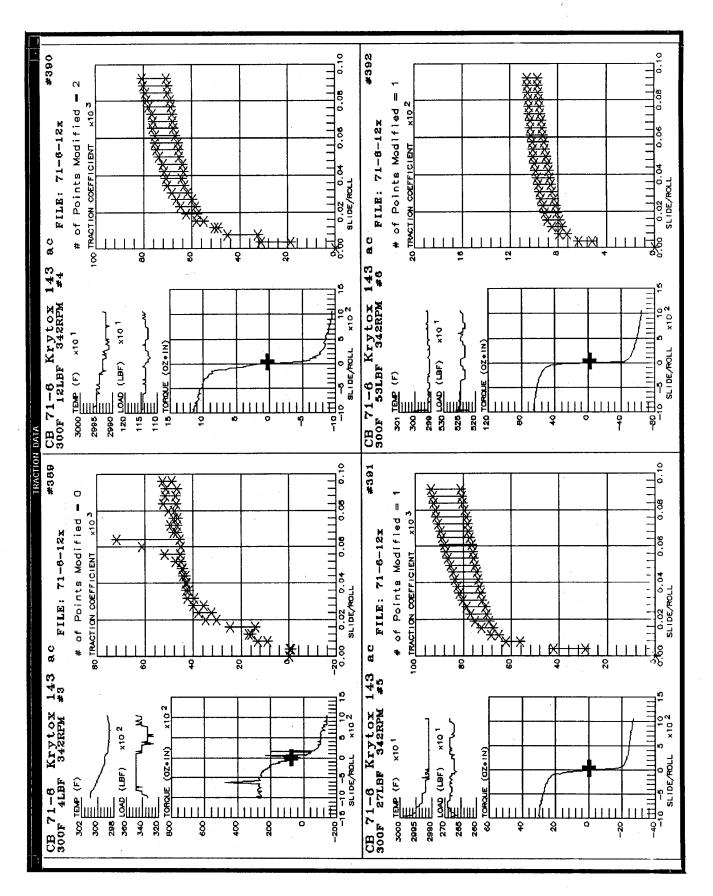


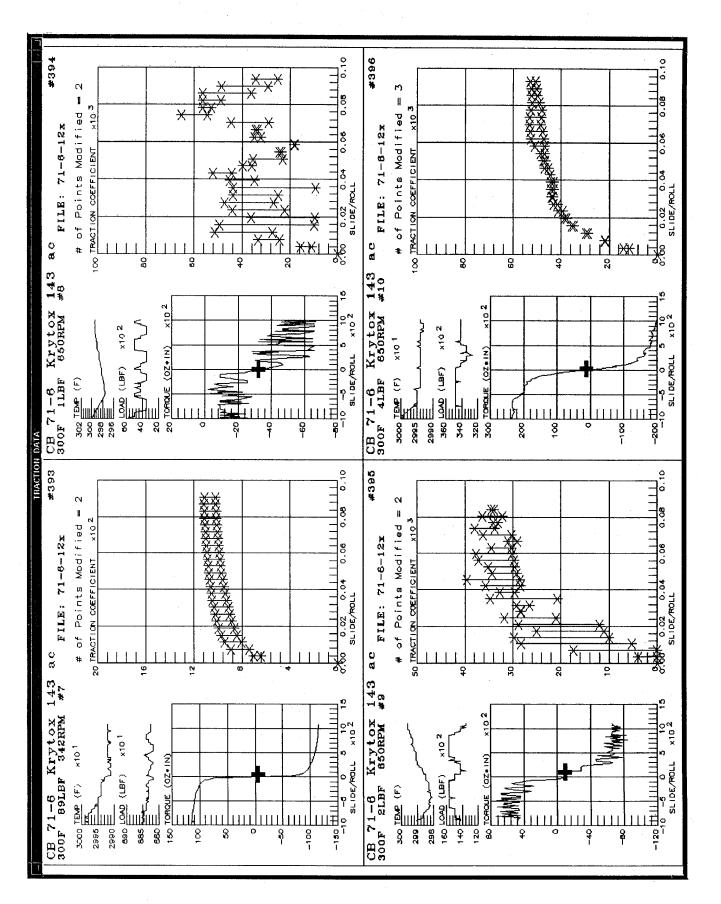


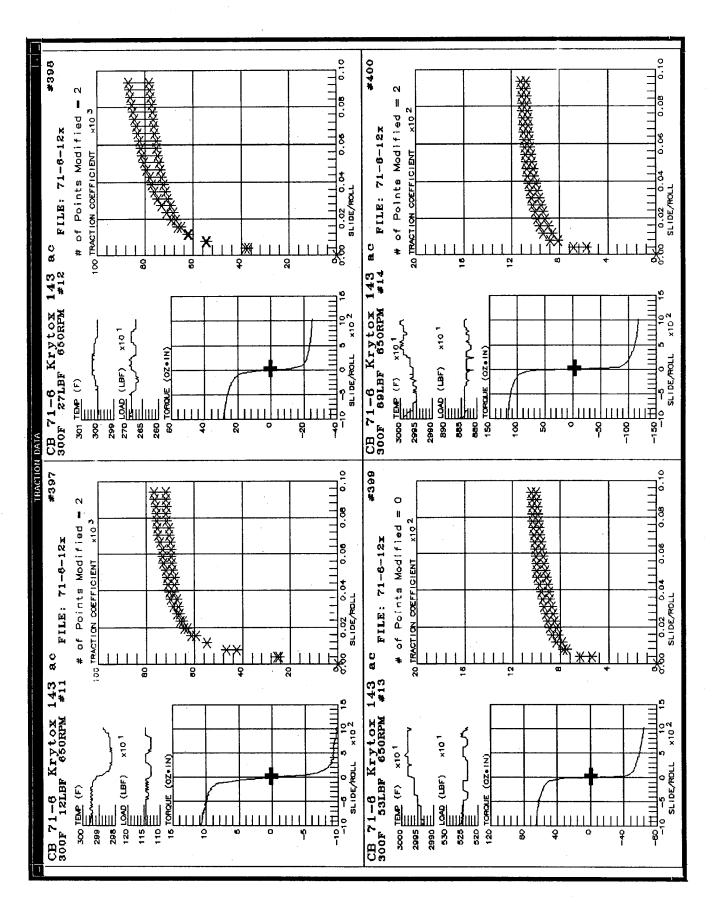


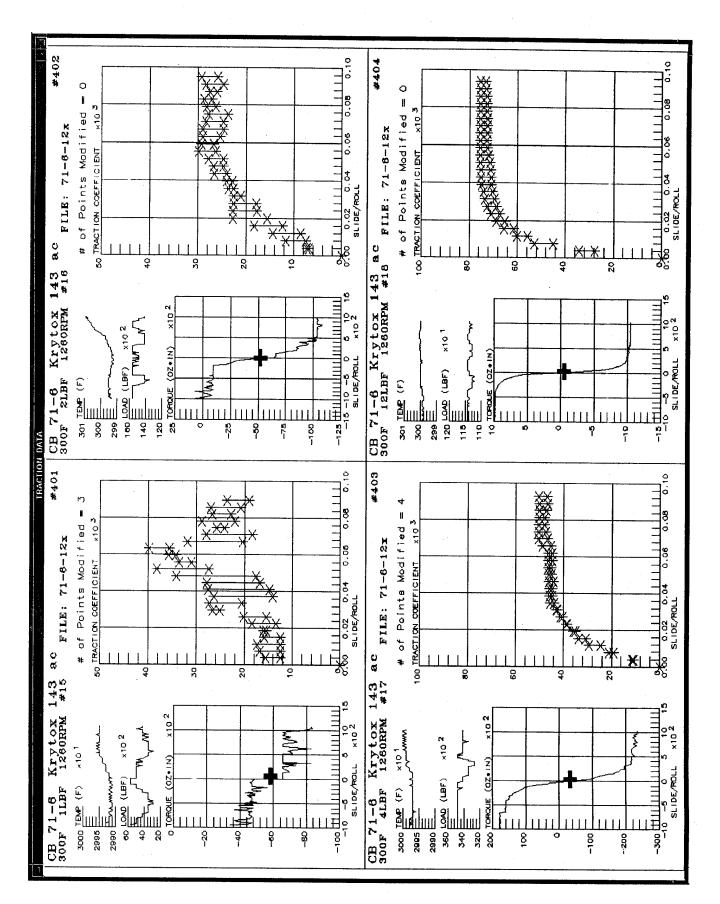


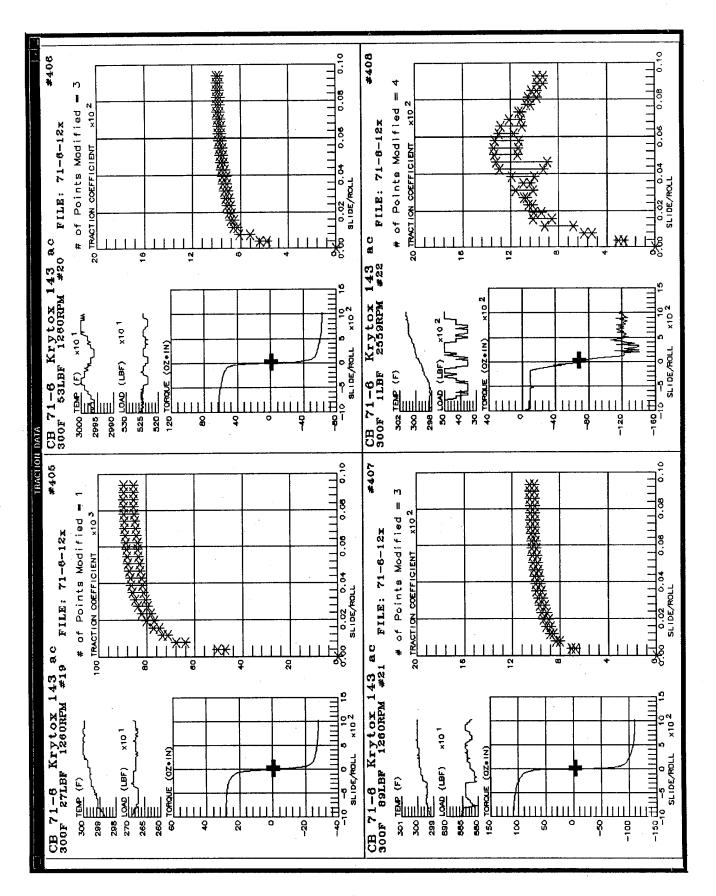


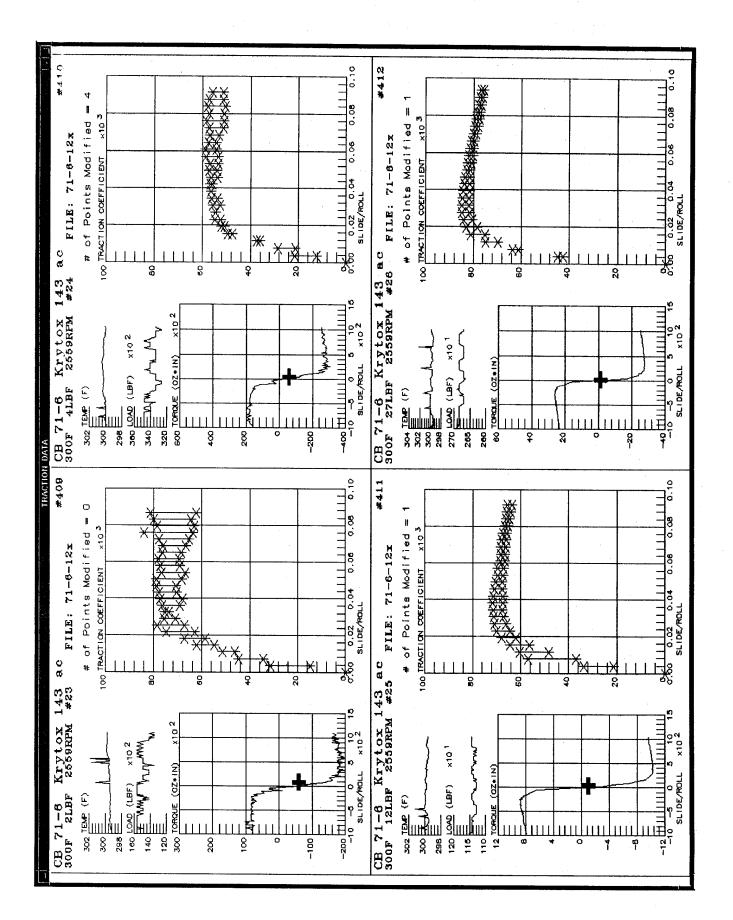


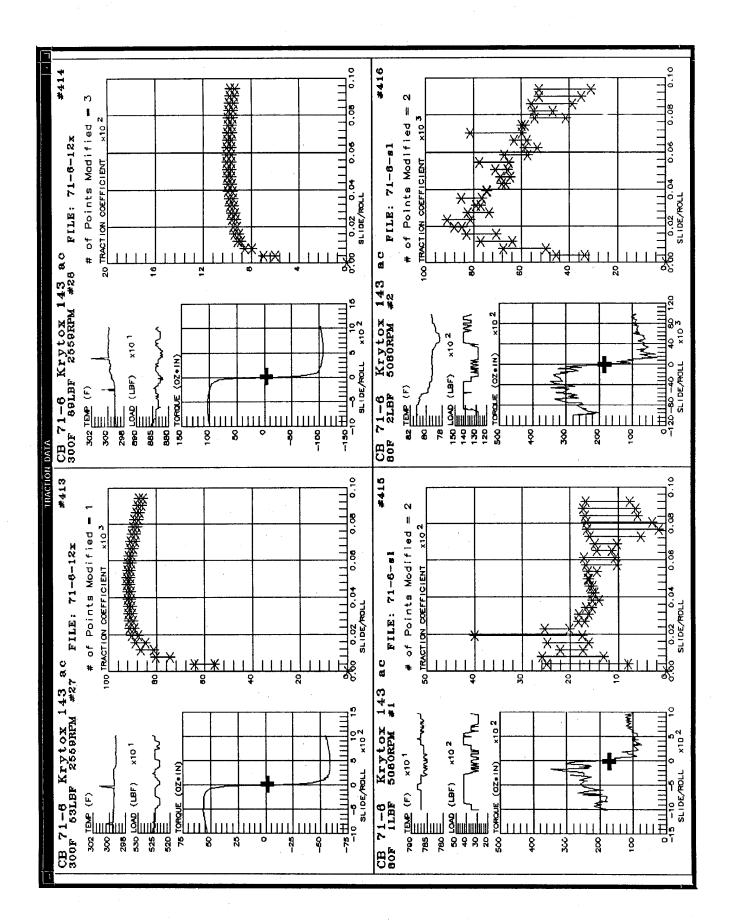


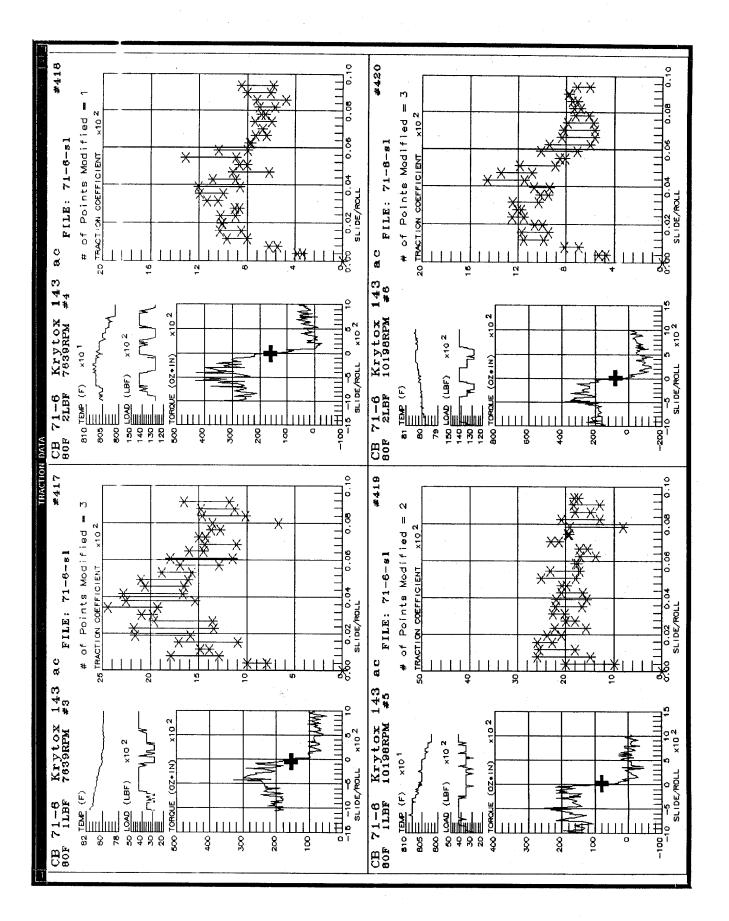


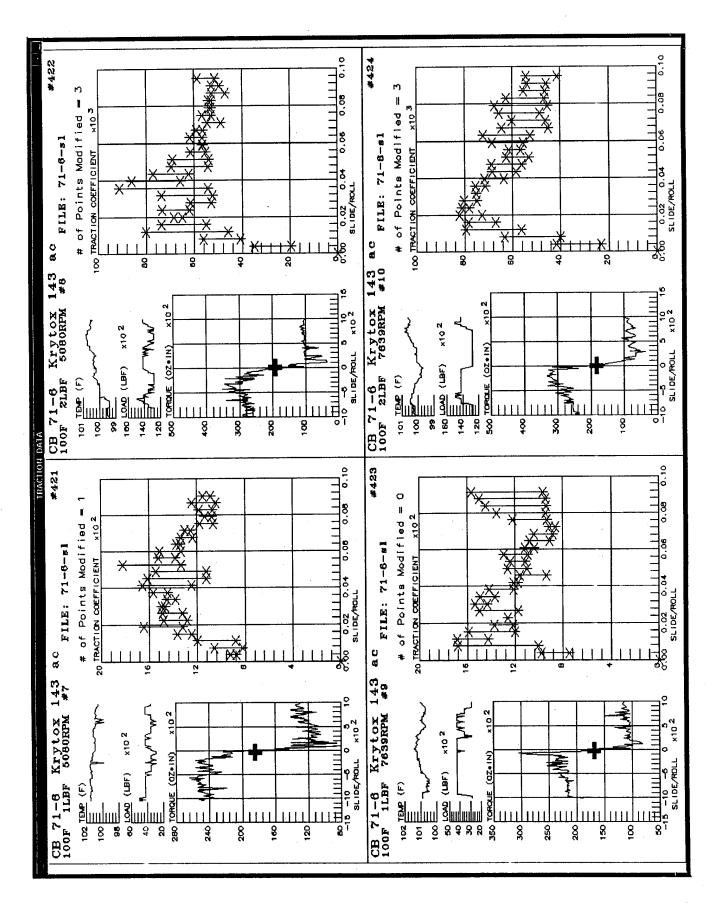


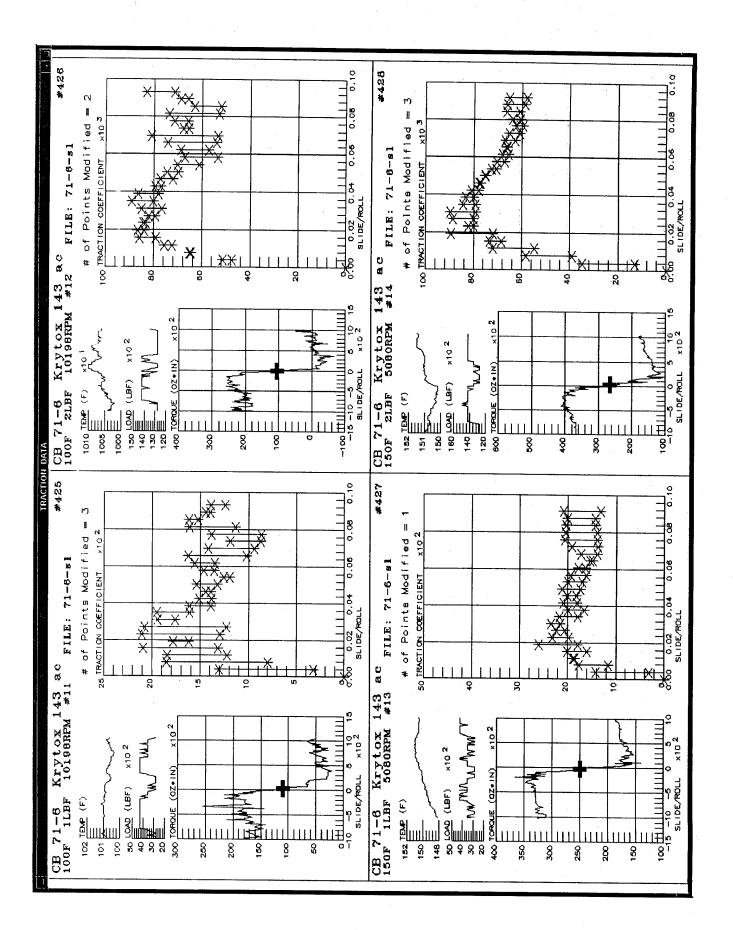


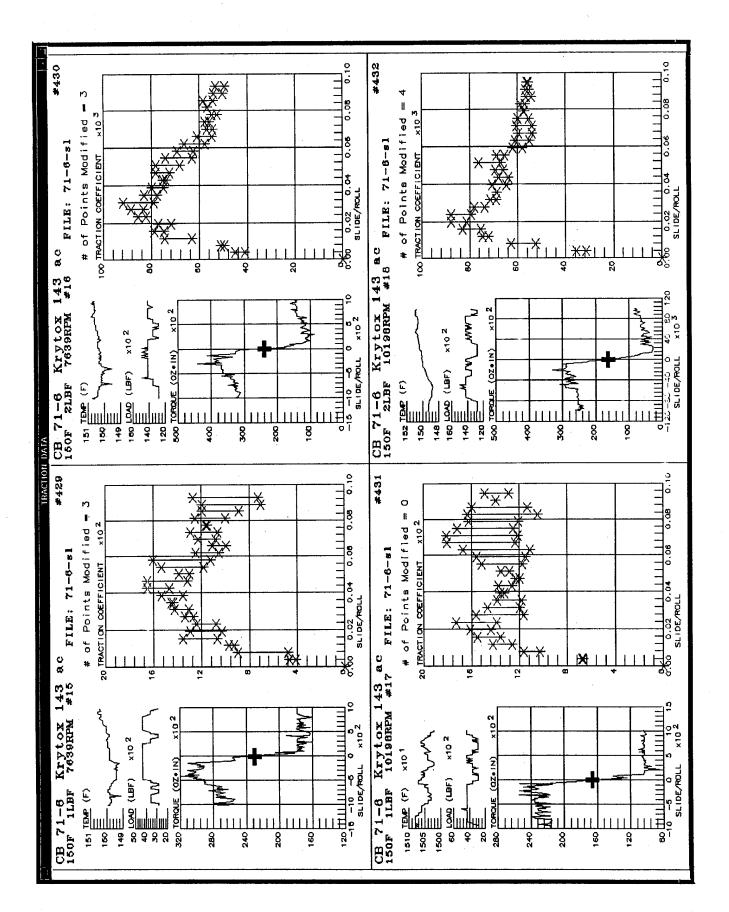


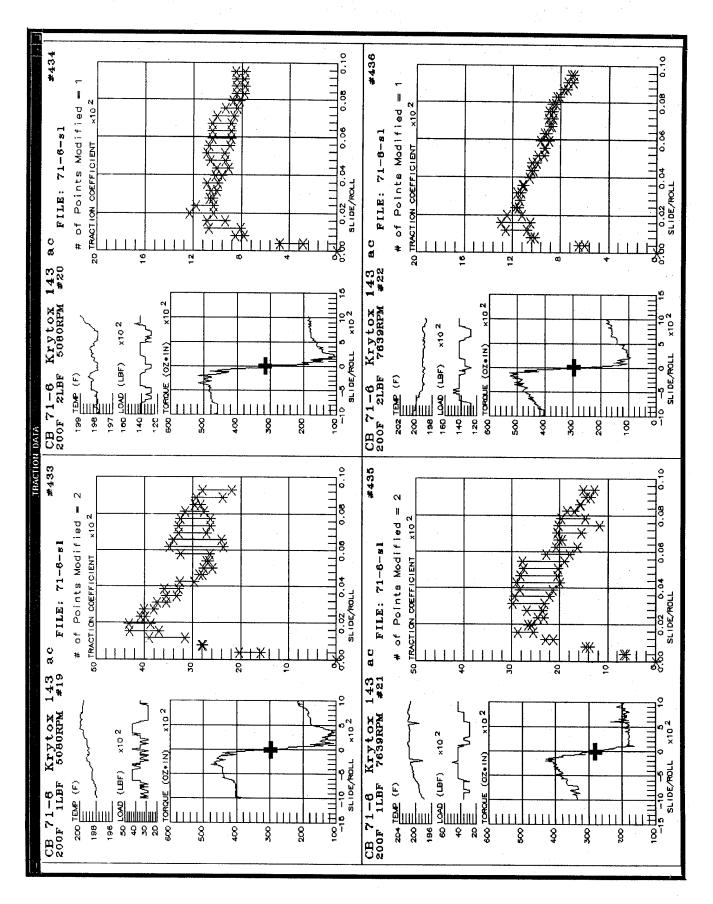


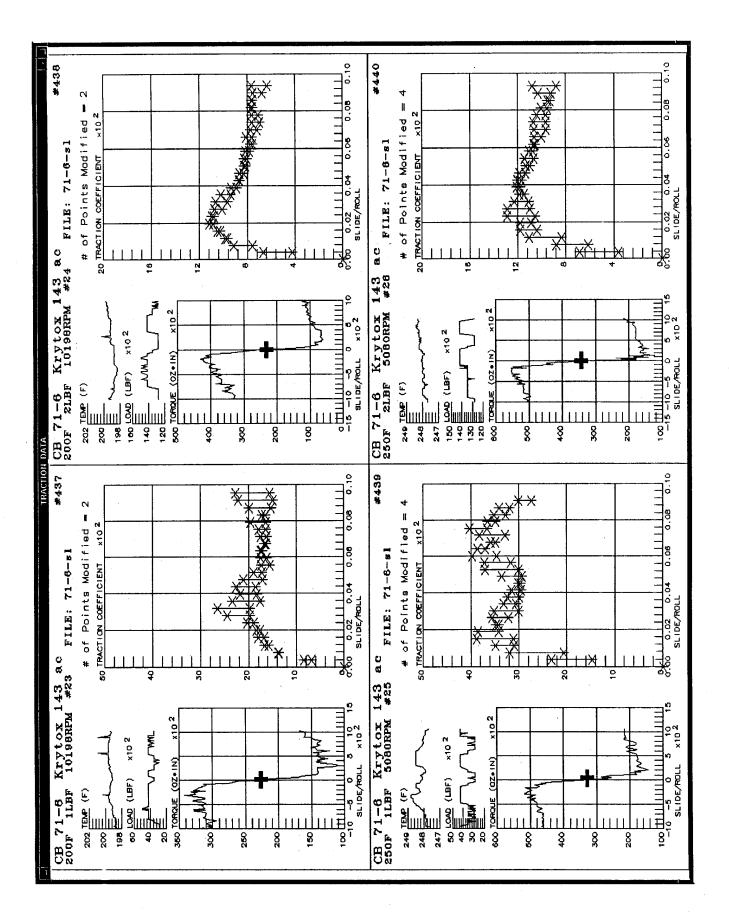


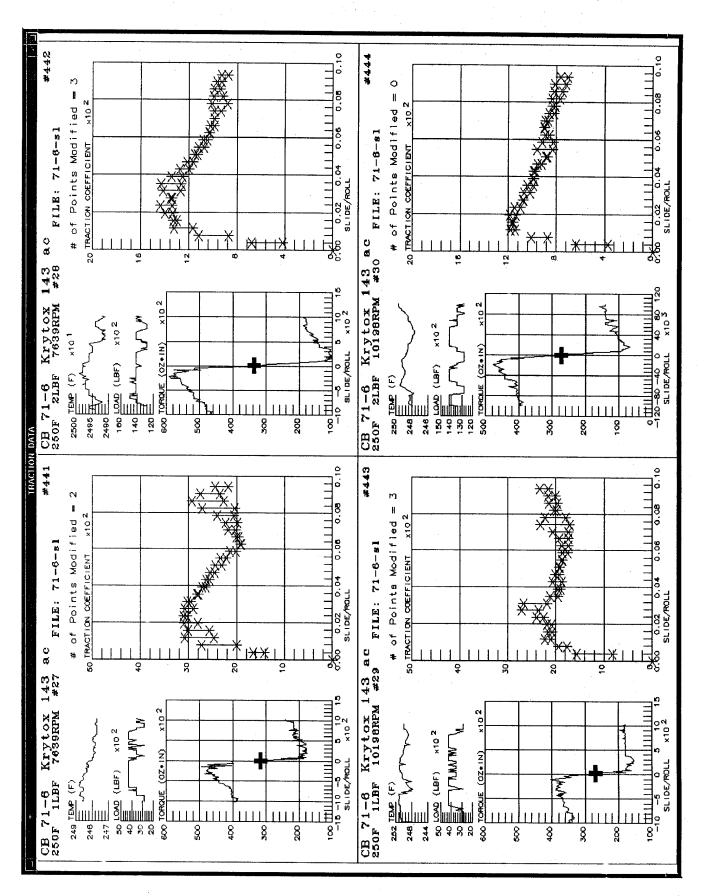


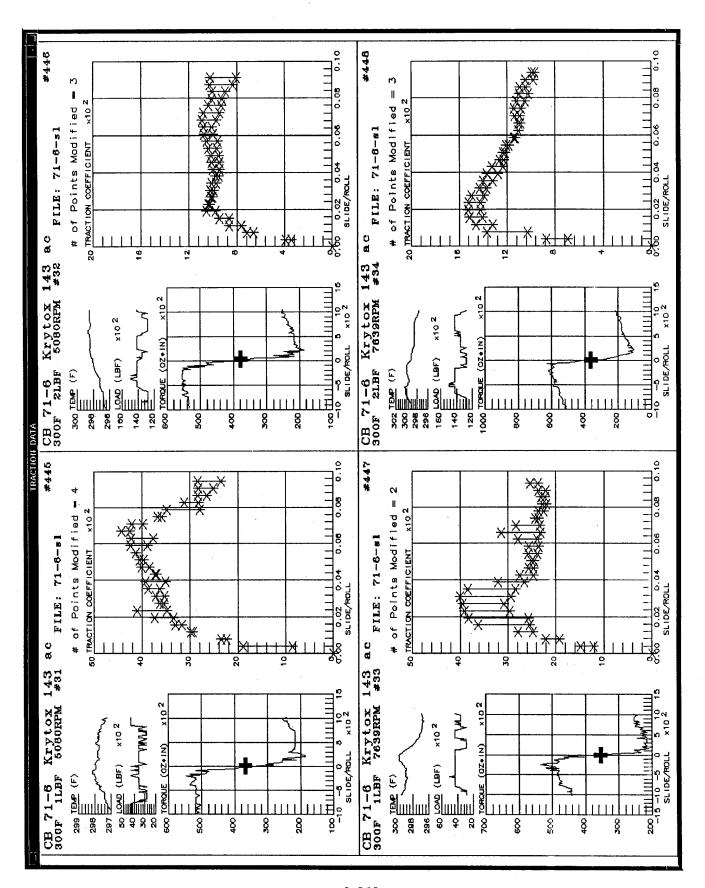


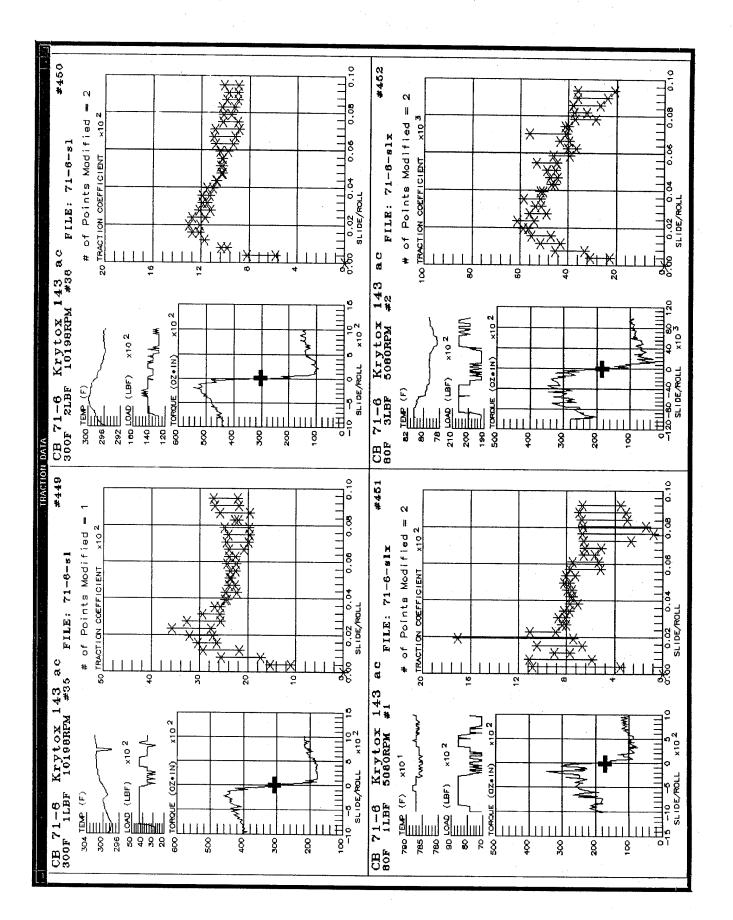


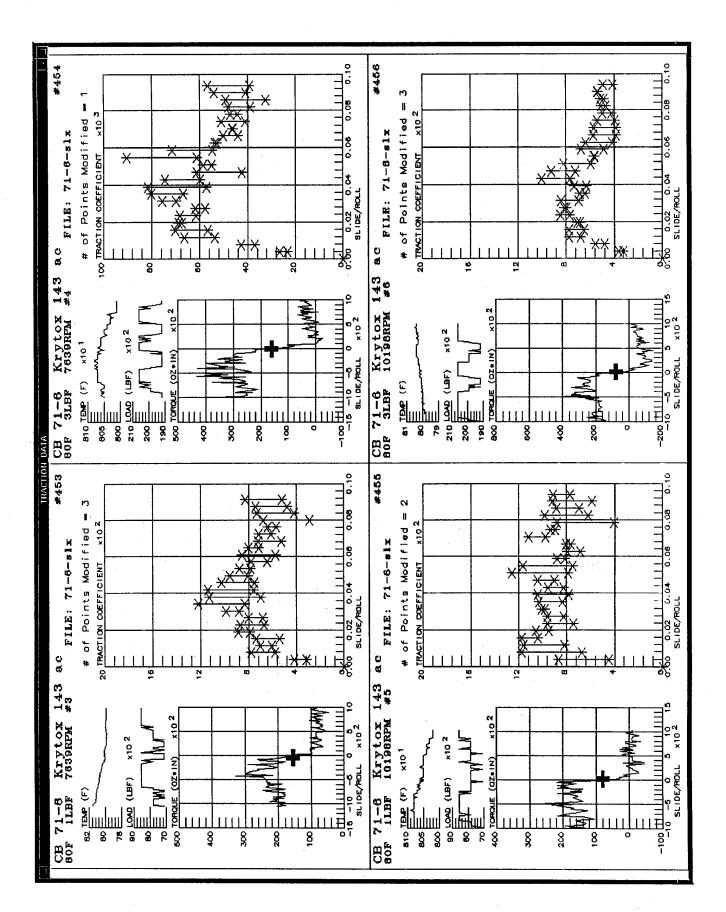


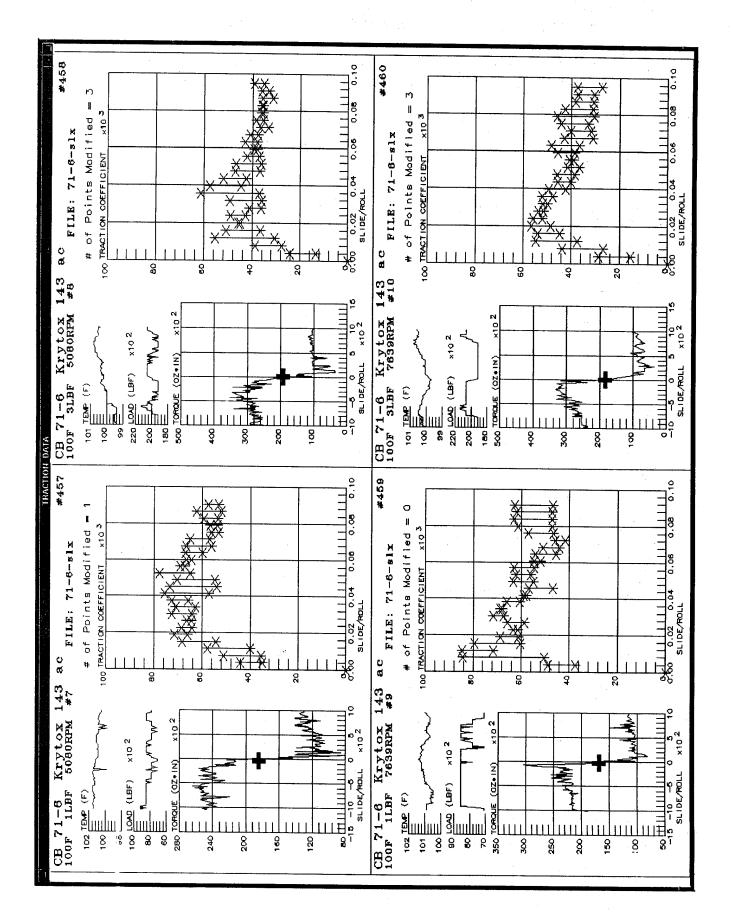


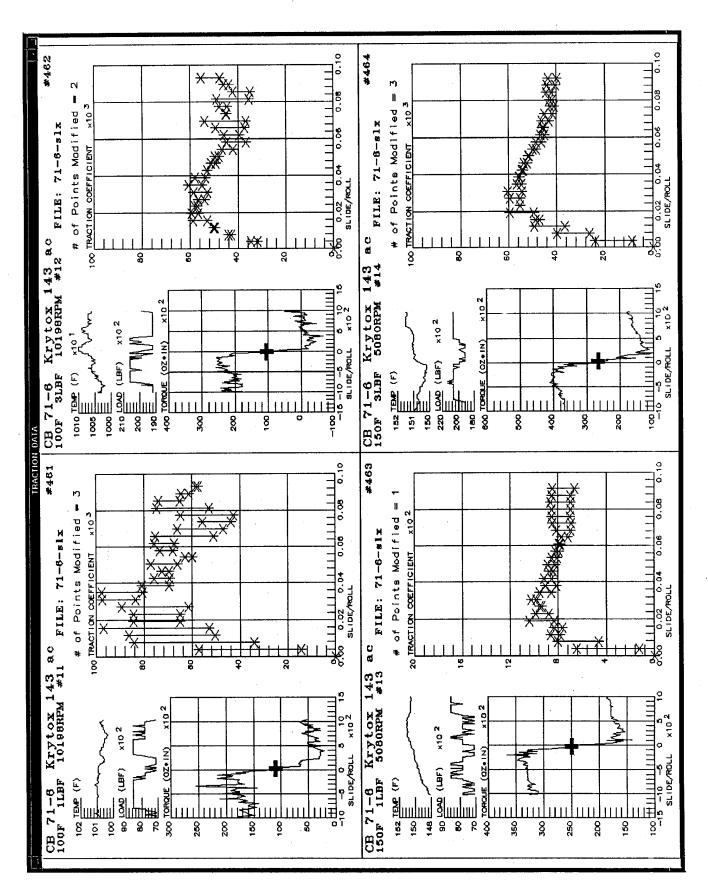


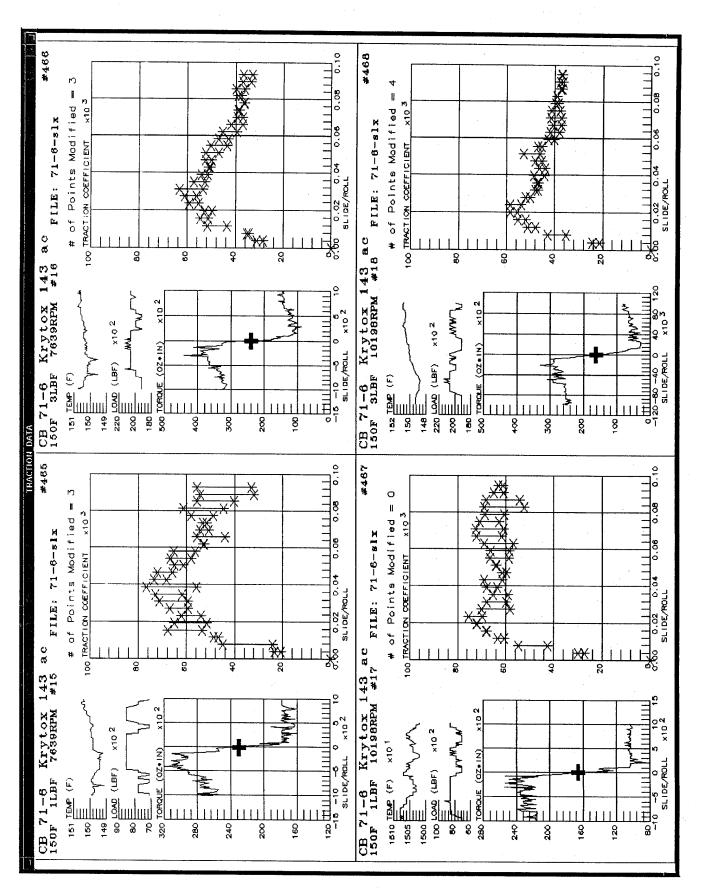


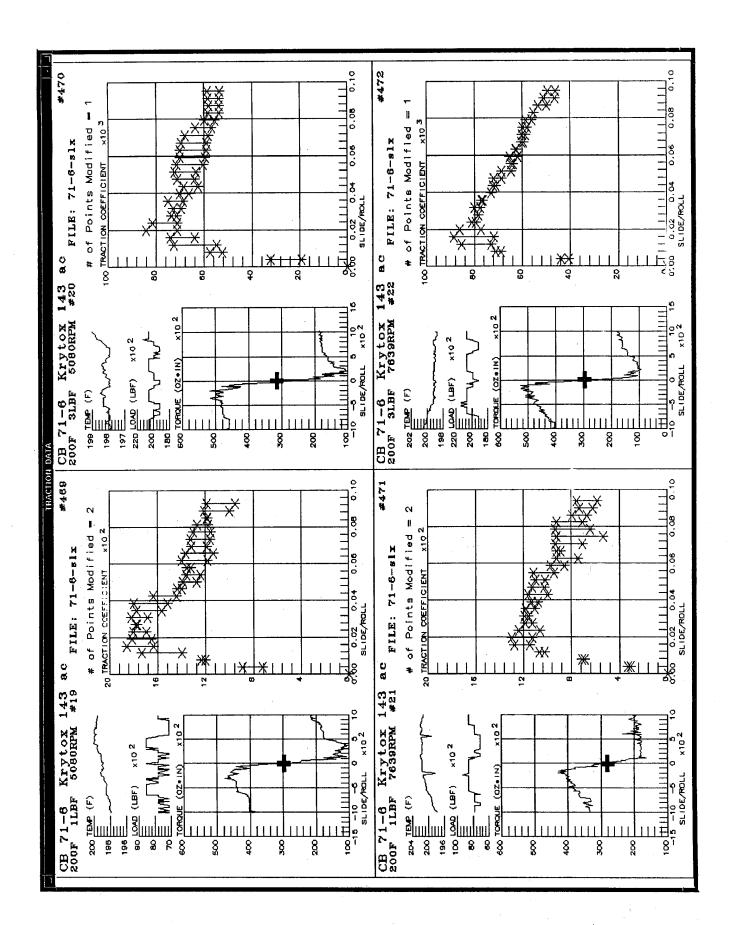


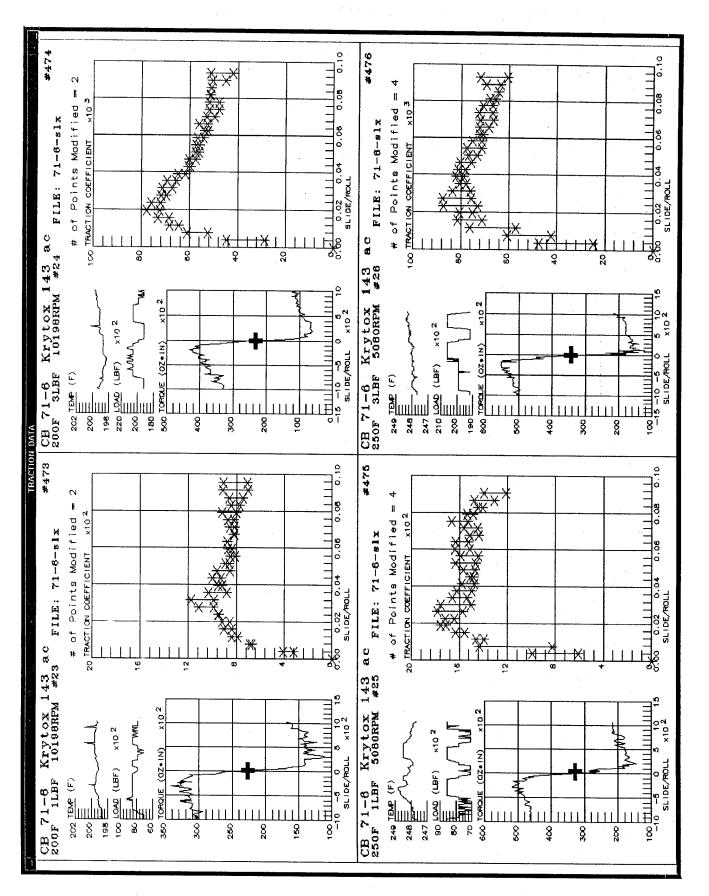


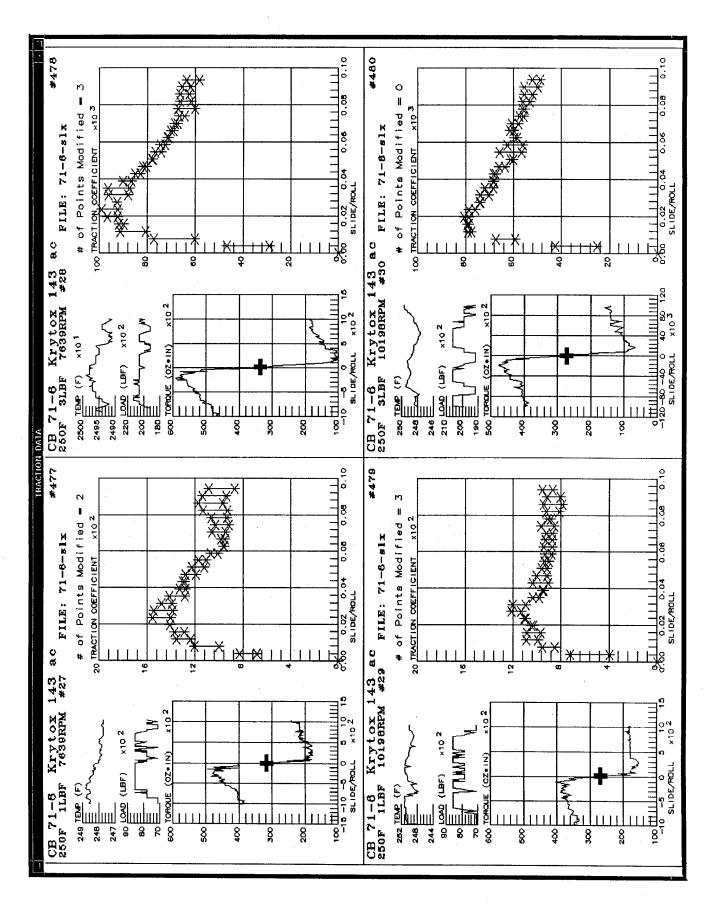


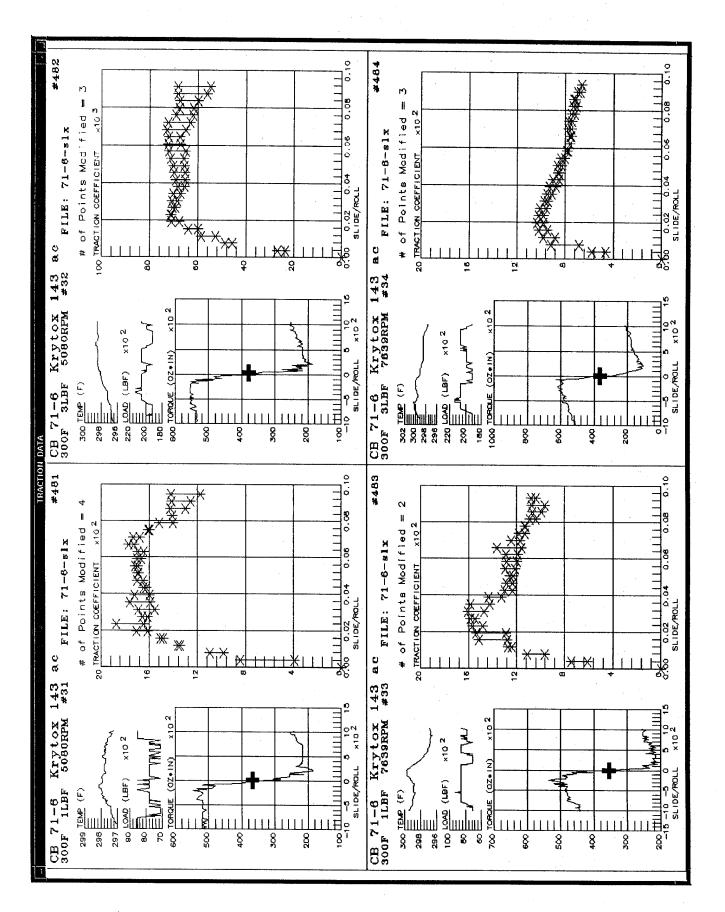


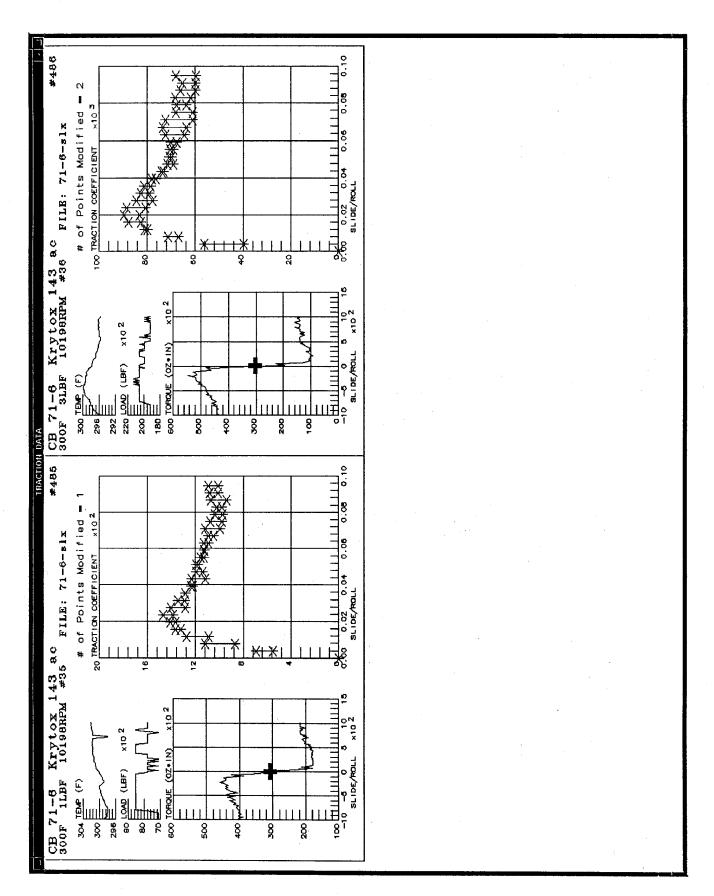


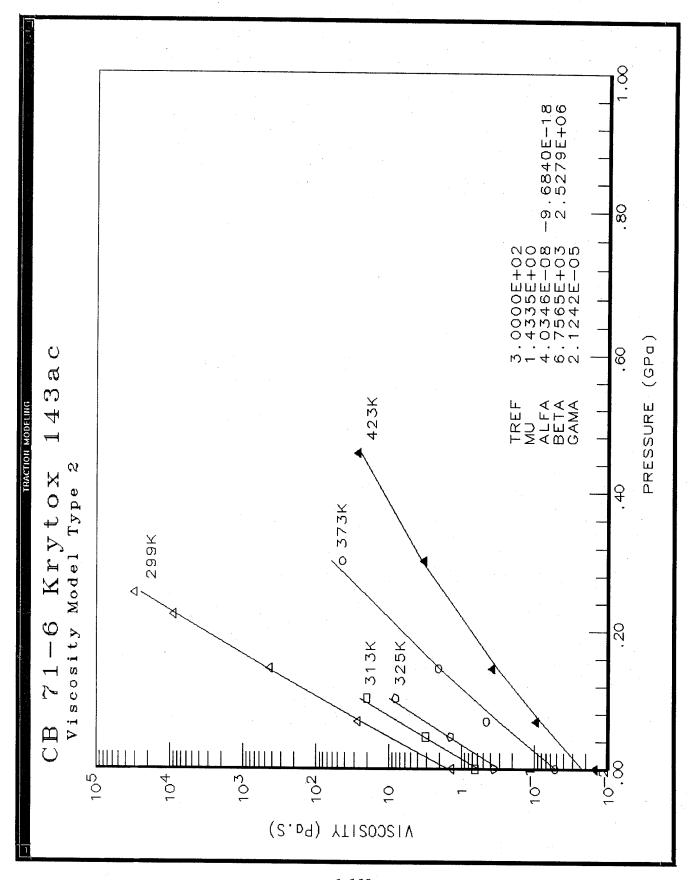


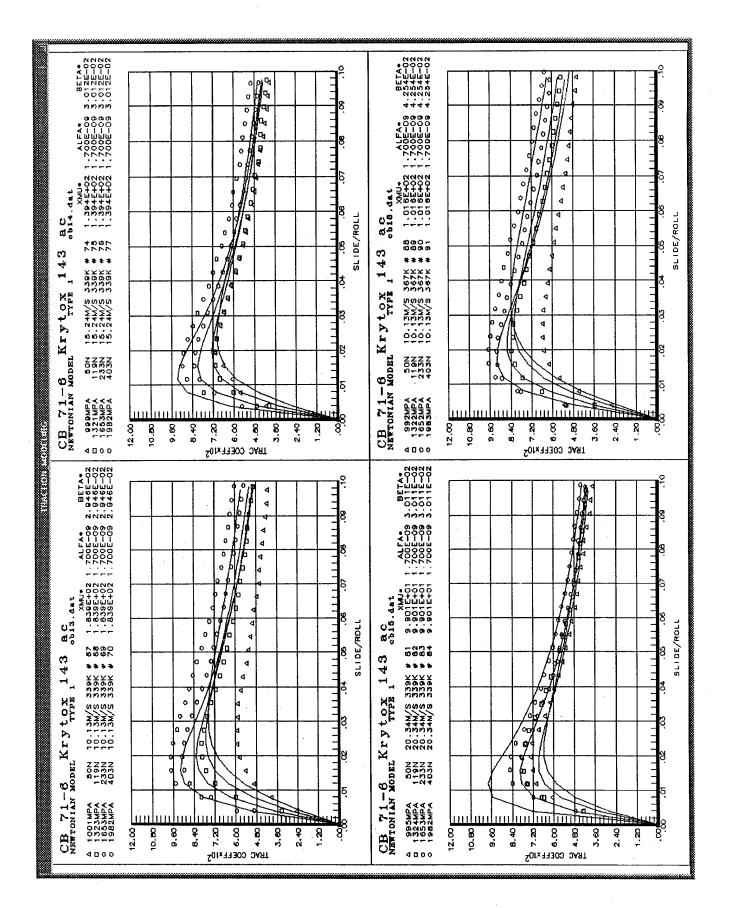


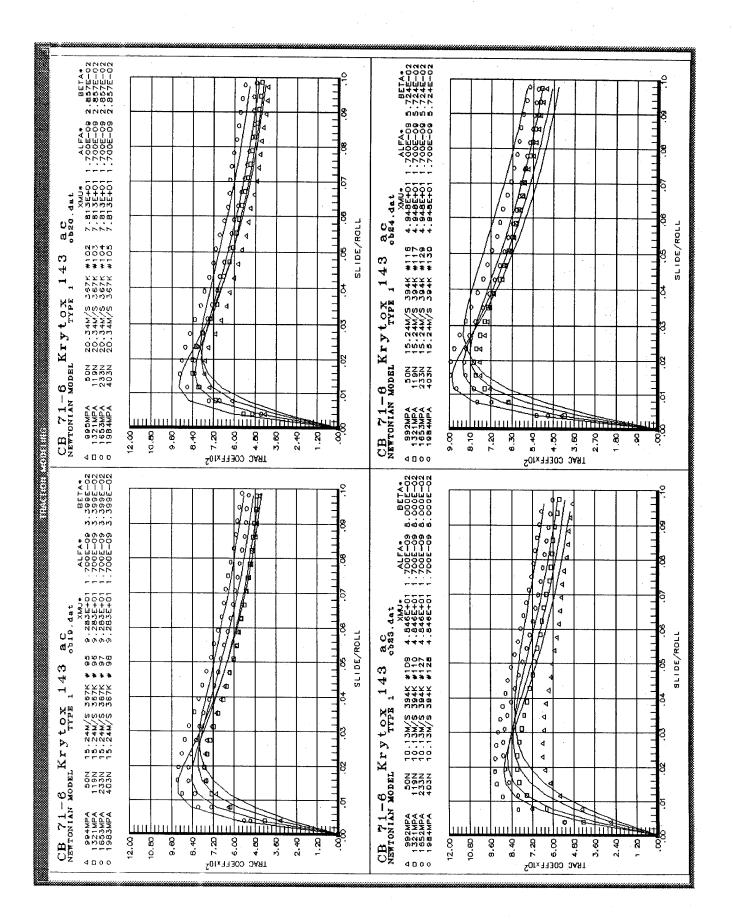


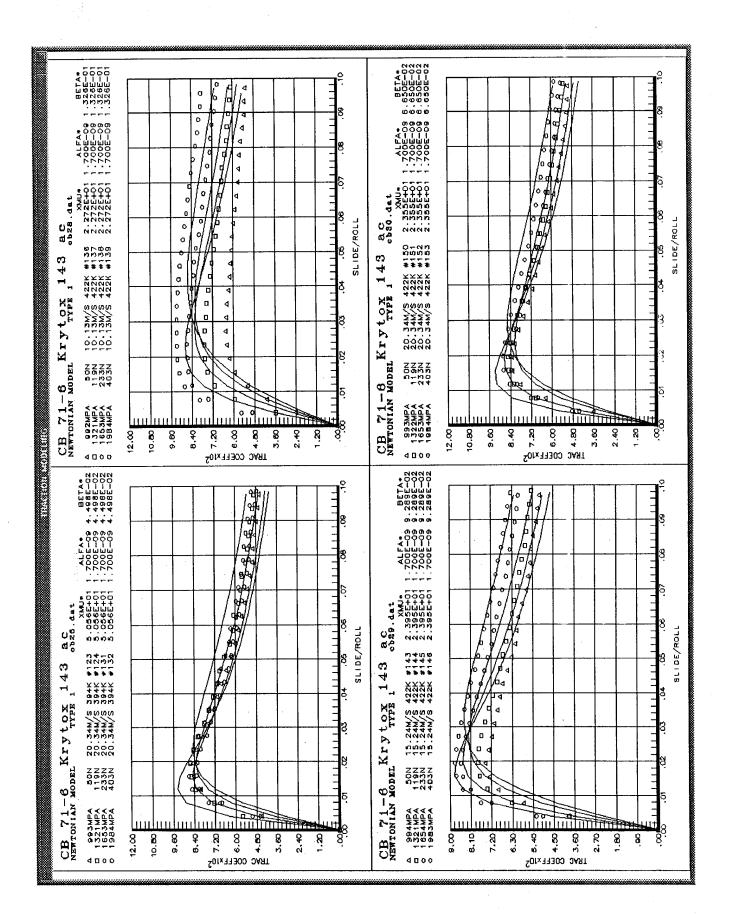












## 4. Traction Data Set C: 66-92 Krytox 143az

Data set name: CG 66-92 Krytox 143 az Rolling radii [Disks 1 & 2] (in): 0.75 0.75 Crown radii [Disks 1 & 2] (in): 0.73 0.70

Number of data sets found = 210

	Temp F	Load lbf	Rpm1	Rpm2	RollRpm	Points	Dataset/Test #
1	100.00	2.56	2295.00	2805.00	2550.00	50	cg100h #1
2	100.00	8.63	2295.00	2805.00	2550.00	50	cg100h #2
3	100.00	20.45	2295.00	2805.00	2550.00	50	cg100h #3
4	100.00	39.94	2295.00	2805.00	2550.00	50	cg100h #4
5	100.00	69.01	2295.00	2805.00	2550.00	50	cg100h #5
6	100.00	2.56	4590.00	5610.00	5100.00	50	cg100h #6
7	100.00	8.63	4590.00	5610.00	5100.00	50	cg100h #7
8	100.00	20.45	4590.00	5610.00	5100.00	50	cg100h #8
9	100.00	39.94	4590.00	5610.00	5100.00	50	cg100h #9
10	100.00	69.01	4590.00	5610.00	5100.00	50	cg100h #10
11	100.00	2.56	9135.00	11165.00	10150.00	50	cg100h #11
12	100.00	8.63	9135.00	11165.00	10150.00	50	cg100h #12
13	100.00	20.45	9135.00	11165.00	10150.00	50	cg100h #13
14	100.00	39.94	9135.00	11165.00	10150.00	50	cg100h #14
15	100.00	69.01	9135.00	11165.00	10150.00	50	cg100h #15
16	100.00	2.56	137.00	167.00	152.00	20	cg100m #1
17	100.00	8.63	137.00	167.00	152.00	20	cg100m #2
18	100.00	20.45	137.00	167.00	152.00	20	cg100m #3
19	100.00	39.94	137.00	167.00	152.00	20	cg100m #4
20	100.00	69.01	137.00	167.00	152.00	20	cg100m #5
21	100.00	2.56	280.00	340.00	310.00	20	cg100m #6
22	100.00	8.63	280.00	340.00	310.00	20	cg100m #7
23	100.00	20.45	280.00	340.00	310.00	20	cg100m #8
24	100.00	39.94	280.00	340.00	310.00	20	cg100m #9
25	100.00	69.01	280.00	340.00	310.00	20	cg100m #10
26	100.00	2.56	572.00	699.00	635.50	20	cg100m #11
27	100.00	8.63	572.00	699.00	635.50	20	cg100m #12
28	100.00	20.45	572.00	699.00	635.50	20	cg100m #13
29	100.00	39.94	572.00	699.00	635.50	20	cg100m #14
30	100.00	69.01	572.00	699.00	635.50	20	cg100m #15
31	100.00	2.56	1143.00	1397.00	1270.00	20	cg100m #16
32	100.00	8.63	1143.00	1397.00	1270.00	20	cg100m #17
33	100.00	20.45	1143.00	1397.00	1270.00	20	cg100m #18
34	100.00	39.94	1143.00	1397.00	1270.00	20 20	cg100m #19
35 36	100.00 150.00	69.01 2.56	1143.00 2295.00	1397.00 2805.00	1270.00 2550.00	50 50	cg100m #20 cg150h #1
30 37	150.00	8.63	2295.00	2805.00	2550.00	50 50	cg150h #1 cg150h #2
38	150.00	20.45	2295.00	2805.00	2550.00	50	cg150h #2
39	150.00	39.94	2295.00	2805.00	2550.00	50	cg150h #4
40	150.00	69.01	2295.00	2805.00	2550.00	50	cg150h #5
41	150.00	2.56	4590.00	5610.00	5100.00	50	cg150h #6
42	150.00	8.63	4590.00	5610.00	5100.00	50	cg150h #7
43	150.00	20.45	4590.00	5610.00	5100.00	50	cg150h #8
44	150.00	39.94	4590.00	5610.00	5100.00	50	cg150h #9
45	150.00	69.01	4590.00	5610.00	5100.00	50	cg150h #10
46	150.00	2.56	9135.00	11165.00	10150.00	50	cg150h #11
47	150.00	8.63	9135.00	11165.00	10150.00	50	cg150h #12
48	150.00	20.45	9135.00	11165.00	10150.00	50	cg150h #13
49	150.00	39.94	9135.00	11165.00	10150.00	50	cg150h #14
50	150.00	69.01	9135.00	11165.00	10150.00	50	cg150h #15

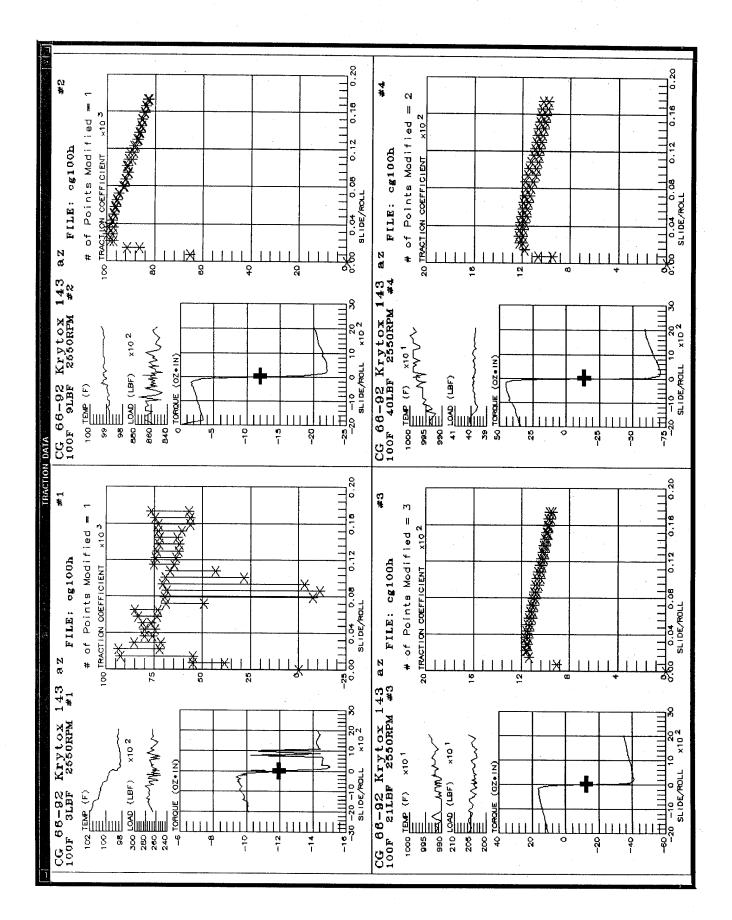
	T <b>em</b> p F	Load	Rpm1	Rpm2	RollRpm	Points	Dataset/Test #
51	150.00	2.56	137.00	167.00	152.00	20	cg150m #1
52	150.00	8.63	137.00	167.00	152.00	20	cg150m #2
53	150.00	20.45	137.00	167.00	152.00	20	cg150m #3
54 55	150.00 150.00	39.94 69.01	137.00 137.00	167.00 167.00	152.00	20	cg150m #4
56	150.00	2.56	280.00	340.00	152.00 310.00	20 20	cg150m #5 cg150m #6
57	150.00	8.63	280.00	340.00	310.00	20	cg150m #7
58	150.00	20.45	280.00	340.00	310.00	20	cg150m #8
59	150.00	39.94	280.00	340.00	310.00	20	cg150m #9
60 61	150.00 150.00	69.01 2.56	280.00 572.00	340.00	310.00	20	cg150m #10
62	150.00	8.63	572.00	699.00 699.00	635.50 635.50	20 20	cg150m #11 cg150m #12
63	150.00	20.45	572.00	699.00	635.50	20	cg150m #13
64	150.00	<b>39.</b> 94	572.00	699.00	635.50	20	cg150m #14
65	150.00	69.01	572.00	699.00	635.50	20	cg150m #15
66 67	150.00 150.00	2.56 8.63	1143.00 1143.00	1397.00	1270.00	20	cg150m #16
68	150.00	20.45	1143.00	1397.00 1397.00	1270.00 1270.00	20 20	cg150m #17 cg150m #18
69	150.00	39.94	1143.00	1397.00	1270.00	20	cg150m #19
70	150.00	69.01	1143.00	1397.00	1270.00	20	cg150m #20
71	200.00	2.56	2295.00	2805.00	2550.00	50	cg200h #1
72	200.00	8.63	2295.00	2805.00	2550.00	50	cg200h #2
73 74	200.00 200.00	20.45 39.94	2295.00 2295.00	2805.00 2805.00	2550.00 2550.00	50 50	cg200h #3
75	200.00	69.01	2295.00	2805.00	2550.00	50	cg200h #4 cg200h #5
76	200.00	2.56	4590.00	5610.00	5100.00	50	cg200h #6
77	200.00	8.63	4590.00	5610.00	5100.00	50	cg200h #7
78 79	200.00	20.45 39.94	4590.00	5610.00	5100.00	50	cg200h #8
80	200.00 200.00	69.01	4590.00 4590.00	5610.00 5610.00	5100.00 5100.00	50 50	cg200h #9 cg200h #10
81	200.00	2.56	9135.00	11165.00	10150.00	50	cg200h #10 cg200h #11
82	200.00	8.63	9135.00	11165.00	10150.00	50	cg200h #12
83	200.00	20.45	9135.00	11165.00	10150.00	50	cg200h #13
84 85	200.00 200.00	39.94 69.01	9135.00 9135.00	11165.00	10150.00	50	cg200h #14
86	200.00	2.56	137.00	11165.00 167.00	10150.00 152.00	50 20	cg200h #15 cg200m #1
87	200.00	8.63	137.00	167.00	152.00	20	cg200m #2
88	200.00	20.45	137.00	167.00	152.00	20	cg200m #3
89 90	200.00 200.00	39.94 69.01	137.00	167.00	152.00	20	cg200m #4
91	200.00	2.56	137.00 280.00	167.00 340.00	152.00 310.00	20 20	cg200m #5 cg200m #6
92	200.00	8.63	280.00	340.00	310.00	20	cg200m #7
93	200.00	20.45	280.00	340.00	310.00	20	cg200m #8
94	200.00	39.94	280.00	340.00	310.00	20	cg200m #9
95 96	200.00 200.00	69.01 2.56	280.00	340.00	310.00	20	cg200m #10
97	200.00	8.63	572.00 572.00	699.00 699.00	635.50 635.50	20 20	cg200m #11 cg200m #12
98	200.00	20.45	572.00	699.00	635.50	20	cg200m #12
99	200.00	39.94	572.00	699.00	635.50	20	cg200m #14
100	200.00	69.01	572.00	699.00	635.50	20	cg200m #15
101 102	200.00	2.56 8.63	1143.00 1143.00	1397.00 1397.00	1270.00 1270.00	20	cg200m #16
103	200.00	20.45	1143.00	1397.00	1270.00	20 20	cg200m #17 cg200m #18
104	200.00	39.94	1143.00	1397.00	1270.00	20	cg200m #19
105	200.00	69.01	1143.00	1397.00	1270.00	20	cg200m #20
106 107	250.00 250.00	2.56 8.63	2295.00	2805.00	2550.00	50	cg250h #1
107	250.00	20.45	2295.00 2295.00	2805.00 2805.00	2550.00 2550.00	50 50	cg250h #2 cg250h #3
109	250.00	39.94	2295.00	2805.00	2550.00	50	cg250h #4
110	250.00	69.01	2295.00	2805.00	2550.00	50	cg250h #5
111 112	250.00	2.56	4590.00	5610.00	5100.00	50	cg250h #6
113	250.00 250.00	8.63 20.45	4590.00 4590.00	5610.00 5610.00	5100.00 5100.00	50 50	cg250h #7 cg250h #8
114	250.00	39.94	4590.00	5610.00	5100.00	50	cg250h #6 cg250h #9
115	250.00	69.01	4590.00	5610.00	5100.00	50	cg250h #10
116	250.00	2.56	9135.00	11165.00	10150.00	50	cg250h #11
117 118	250.00 250.00	8.63 20.45	9135.00 9135.00	11165.00	10150.00	50 50	cg250h #12
119	250.00	39.94	9135.00	11165.00 11165.00	10150.00 10150.00	50 50	cg250h #13 cg250h #14
120	250.00	69.01	9135.00	11165.00	10150.00	50	cg250h #15

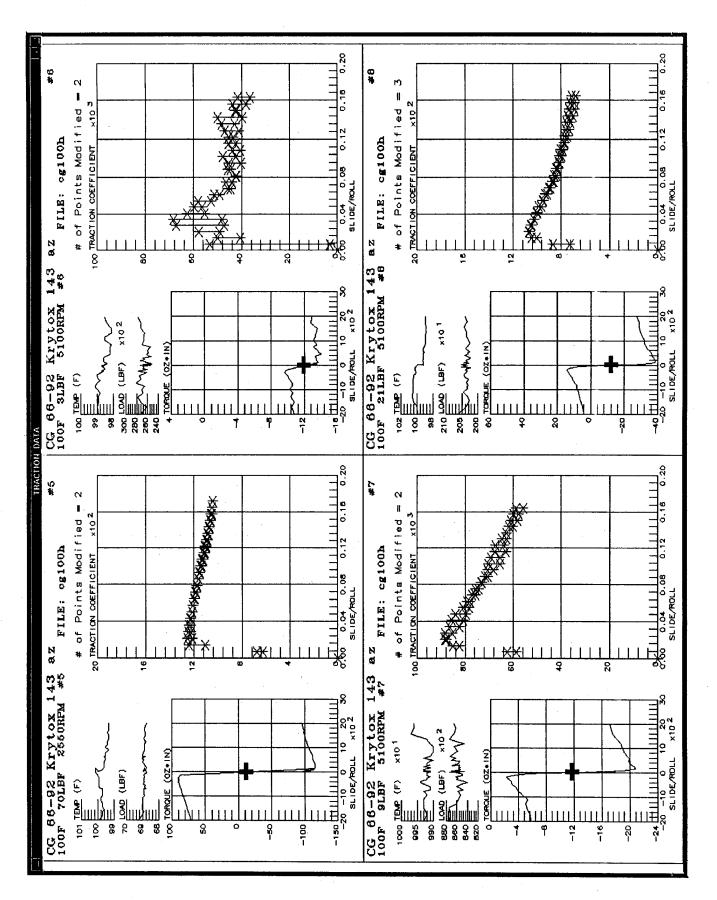
	Temp F	Load lbf	Rpm1	Rpm2	RollRpm	Points	Dataset/Test #
121	250.00	2.56	137.00	167.00	152.00	20	cg250m #1
122	250.00	8.63	137.00	167.00	152.00	20	cg250m #2
123	250.00	20.45	137.00	167.00	152.00	20	cg250m #3
124 125	250.00 250.00	39.94 69.01	137.00 137.00	167.00 167.00	152.00 152.00	20 20	cg250m #4 cg250m #5
126	250.00	2.56	280.00	340.00	310.00	20	cg250m #6
127	250.00	8.63	280.00	340.00	310.00	20	cg250m #7
128	250.00	20.45	280.00	340.00	310.00	20	cg250m #8
129	250.00	39.94	280.00	340.00	310.00	20 20	cg250m #9 cg250m #10
130 131	250.00 250.00	69.01 2.56	280.00 572.00	340.00 699.00	310.00 635.50	20	cg250m #10
132	250.00	8.63	572.00	699.00	635.50	20	cg250m #12
133	250.00	20.45	572.00	699.00	635.50	20	cg250m #13
134	250.00	39.94	572.00	699.00	635.50	20	cg250m #14
135 136	250.00 250.00	69.01 2.56	572.00 1143.00	699.00 1397.00	635.50 1270.00	20 20	cg250m #15 cg250m #16
137	250.00	8.63	1143.00	1397.00	1270.00	20	cg250m #17
138	250.00	20.45	1143.00	1397.00	1270.00	20	cg250m #18
139	250.00	39.94	1143.00	1397.00	1270.00	20	cg250m #19
140 141	250.00 300.00	69.01 2.56	1143.00 2295.00	1397.00 2805.00	1270.00 2550.00	20 50	cg250m #20 cg300h #1
142	300.00	8.63	2295.00	2805.00	2550.00	50	cg300h #1
143	300.00	20.45	2295.00	2805.00	2550.00	50	cg300h #3
144	300.00	39.94	2295.00	2805.00	2550.00	50	cg300h #4
145 146	300.00 300.00	69.01 2.56	2295.00 4590.00	2805.00 5610.00	2550.00 5100.00	50 50	cg300h #5 cg300h #6
147	300.00	8.63	4590.00	5610.00	5100.00	50	cg300h #7
148	300.00	20.45	4590.00	5610.00	5100.00	50	cg300h #8
149	300.00	39.94	4590.00	5610.00	5100.00	50	cg300h #9
150 151	300.00 300.00	69.01 2.56	4590.00 9135.00	5610.00 11165.00	5100.00 10150.00	50 50	cg300h #10 cg300h #11
152	300.00	8.63	9135.00	11165.00	10150.00	50	cg300h #11
153	300.00	20.45	9135.00	11165.00	10150.00	50	cg300h #13
154	300.00	39.94	9135.00	11165.00	10150.00	50	cg300h #14
155	300.00	69.01	9135.00	11165.00	10150.00	50	cg300h #15
156 157	300.00 300.00	2.56 8.63	137.00 137.00	167.00 167.00	152.00 152.00	20 20	cg300m #1 cg300m #2
158	300.00	20.45	137.00	167.00	152.00	20	cg300m #3
159	300.00	39.94	137.00	167.00	152.00	20	cg300m #4
160	300.00	69.01		167.00	152.00	20	
161 162	300.00 300.00	2.56 8.63	280.00 280.00	340.00 340.00	310.00 310.00	20 20	cg300m #6 cg300m #7
163	300.00	20.45	280.00	340.00	310.00	20	cg300m #8
164	300.00	39.94	280.00	340.00	310.00	20	cg300m #9
165	300.00	69.01	280.00	340.00	310.00	20	cg300m #10
166 167	300.00 300.00	2.56 8.63	572.00 572.00	699.00 699.00	635.50 635.50	20 20	cg300m #11 cg300m #12
168	300.00	20.45	572.00	699.00	635.50	20	cg300m #12
169	300.00	39.94	572.00	699.00	635.50	20	cg300m #14
170	300.00	69.01	572.00	699.00	635.50	20	cg300m #15
171 172	300.00 300.00	2.56 8.63	1143.00 1143.00	1397.00 1397.00	1270.00 1270.00	. 20 20	cg300m #16 cg300m #17
173	300.00	20.45	1143.00	1397.00	1270.00	20	cg300m #18
174	300.00	39.94	1143.00	1397.00	1270.00	20	cg300m #19
175	300.00	69.01	1143.00	1397.00	1270.00	20	cg300m #20
176 177	80.00 80.00	2.56 8.63	2295.00 2295.00	2805.00 2805.00	2550.00 2550.00	50 50	cg80h #1 cg80h #2
178	80.00	20.45	2295.00	2805.00	2550.00	50	cg80h #3
179	80.00	39.94	2295.00	2805.00	2550.00	50	cg80h #4
180	80.00	69.01	2295.00	2805.00	2550.00	50	cg80h #5
181 182	80.00	2.56	4590.00 4590.00	5610.00	5100.00	50 50	cg80h #6
183	80.00 80.00	8.63 20.45	4590.00	5610.00 5610.00	5100.00 5100.00	50 50	cg80h #7 cg80h #8
184	80.00	39.94	4590.00	5610.00	5100.00	50	cg80h #9
185	80.00	69.01	4590.00	5610.00	5100.00	50	cg80h #10
186 187	80.00	2.56	9135.00	11165.00	10150.00	50	cg80h #11
187 188	80.00 80.00	8.63 20.45	9135.00 9135.00	11165.00 11165.00	10150.00 10150.00	. 50 50	cg80h #12 cg80h #13
189	80.00	39.94	9135.00	11165.00	10150.00	50	cg80h #14
190	80.00	69.01	9135.00	11165.00	10150.00	47	cg80h #15

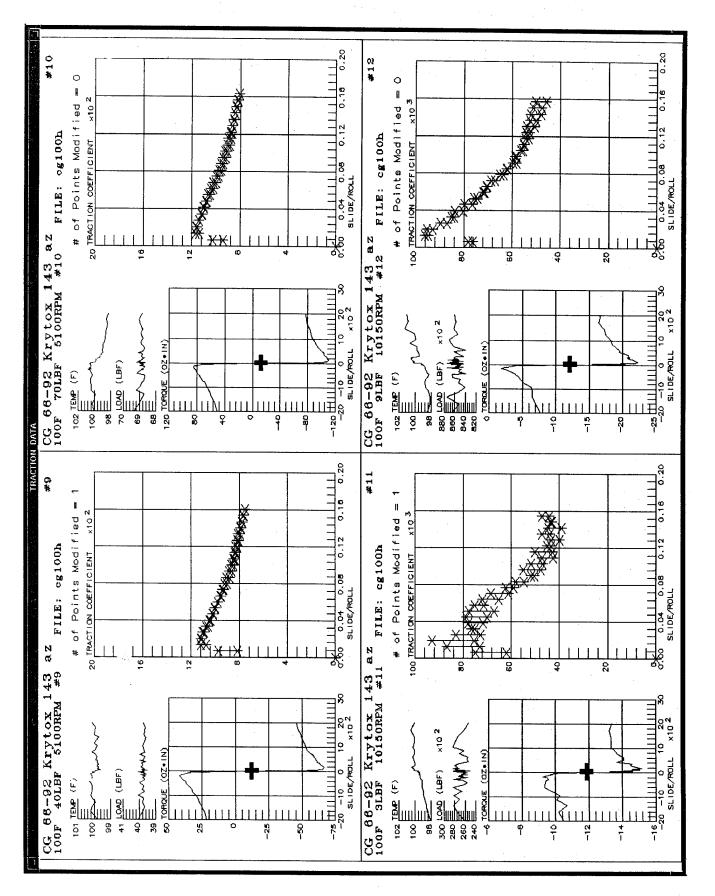
Data set: CG 66-92 Krytox 143 az ....continued

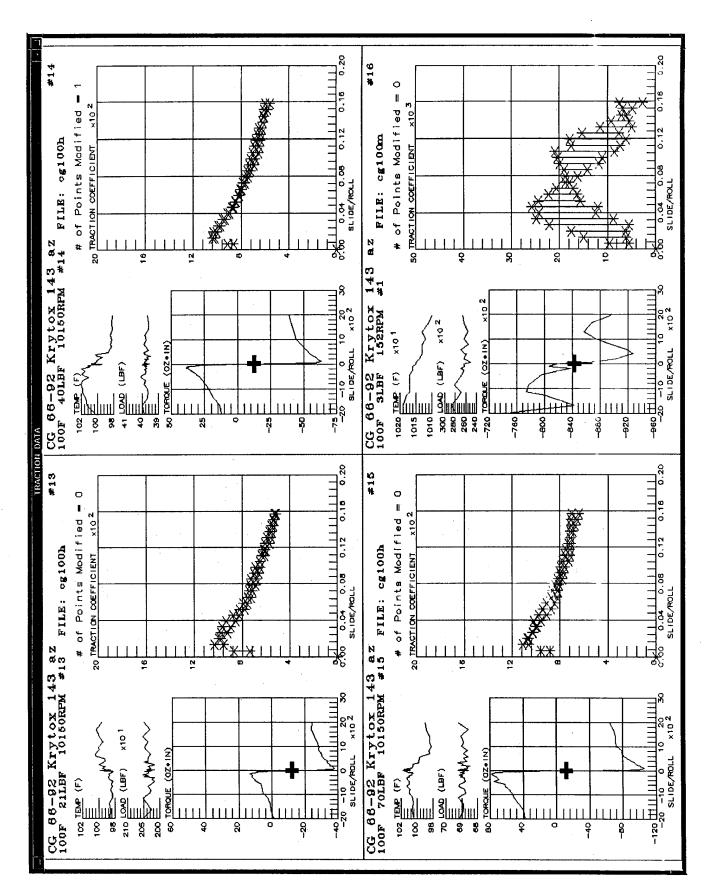
	Temp F	Load lbf	Rpm1	Rpm2	RollRpm	Points	Dataset/Test #
191	80.00	2.56	137.00	167.00	152.00	20	cg80m #1
192	80.00	8.63	137.00	167.00	152.00	20	cg80m #2
193	80.00	20.45	137.00	167.00	152.00	20	cg80m #3
194	80.00	39.94	137.00	167.00	152.00	20	cg80m #4
195	80.00	69.01	137.00	167.00	152.00	20	cg80m #5
196	80.00	2.56	280.00	340.00	310.00	20	cg80m #6
197	80.00	8.63	280.00	340.00	310.00	20	cg80m #7
198	80.00	20.45	280.00	340.00	310.00	20	cg80m #8
199	80.00	39.94	280.00	340.00	310.00	20	cg80m #9
200	80.00	69.01	280.00	340.00	310.00	20	cg80m #10
201	80.00	2.56	572.00	699.00	635.50	20	cg80m #11
202	80.00	8.63	572.00	699.00	635.50	20	cg80m #12
203	80.00	20.45	572.00	699.00	635.50	20	cg80m #13
204	80.00	39.94	572.00	699.00	635.50	20	cg80m #14
205	80.00	69.01	572.00	699.00	635.50	20	cg80m #15
206	80.00	2.56	1143.00	1397.00	1270.00	20	cg80m #16
207	80.00	8.63	1143.00	1397.00	1270.00	20	cg80m #17
208	80.00	20.45	1143.00	1397.00	1270.00	20	cg80m #18
209	80.00	39.94	1143.00	1397.00	1270.00	20	cg80m #19
210	80.00	69.01	1143.00	1397.00	1270.00	20	cg80m #20

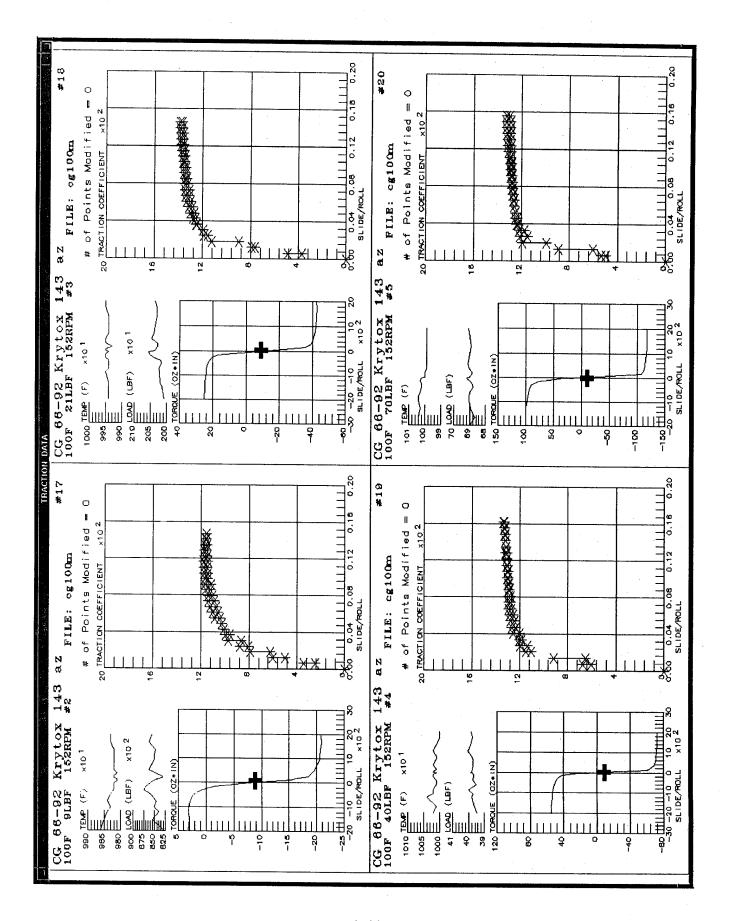
Filename	Temp	RollRpm	DataCurve #
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cg2.dat	80.00	2550.00	177 178 179 180
cg3.dat	80.00	5100.00	182 183 184 185
cg4.dat	80.00	10150.00	187 188 189 190
cg5.dat	100.00	1270.00	32 33 34 35
cg6.dat	100.00	2550.00	2 3 4 5
cg7.dat	100.00	5100.00	7 8 9 10
cg8.dat	100.00	10150.00	12 13 14 15
cg9.dat	150.00	1270.00	67 68 69 70
cg10.dat	150.00	2550.00	37 38 39 40
cg11.dat	150.00	5100.00	42 43 44 45
cg12.dat	150.00	10150.00	47 48 49 50
cg13.dat	200.00	1270.00	102 103 104 105
cg14.dat	200.00	2550.00	72 73 74 75
cg15.dat	200.00	5100.00	77 78 79 80
cg16.dat	200.00	10150.00	82 83 84 85
cg17.dat	250.00	1270.00	137 138 139 140
cg18.dat	250.00	2550.00	107 108 109 110
cg19.dat	250.00	5100.00	112 113 114 115
cg20.dat	250.00	10150.00	117 118 119 120
cg21.dat	300.00	1270.00	172 173 174 175
cg22.dat	300.00	2550.00	142 143 144 145
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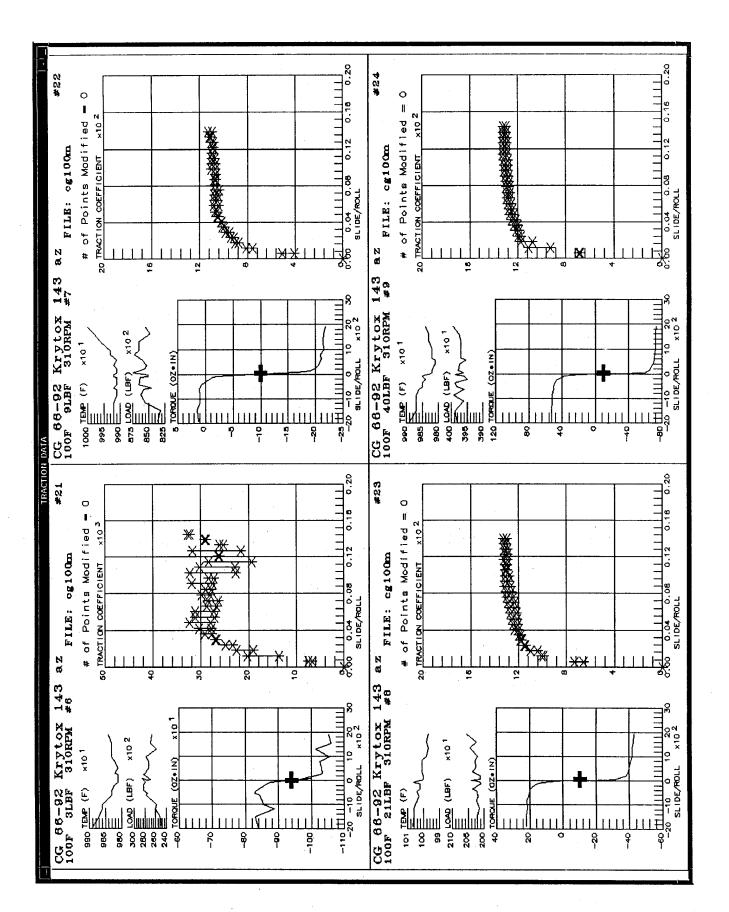


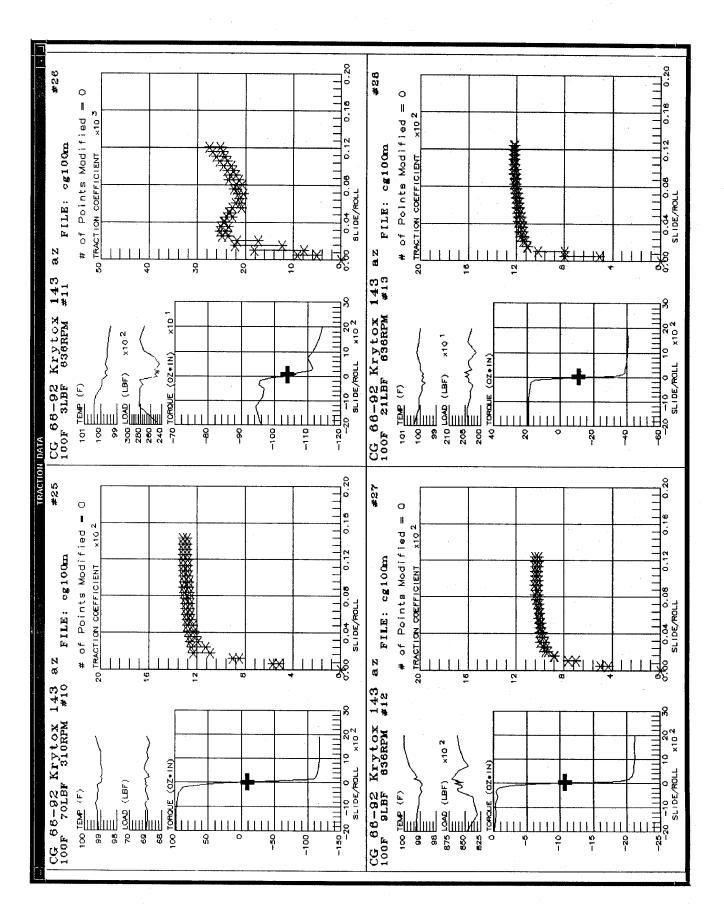


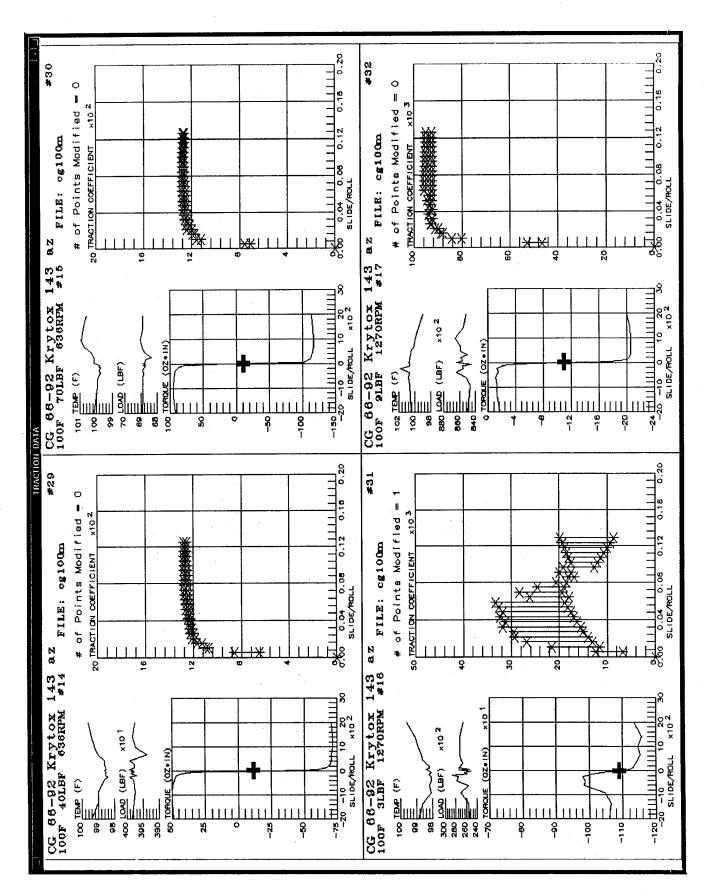


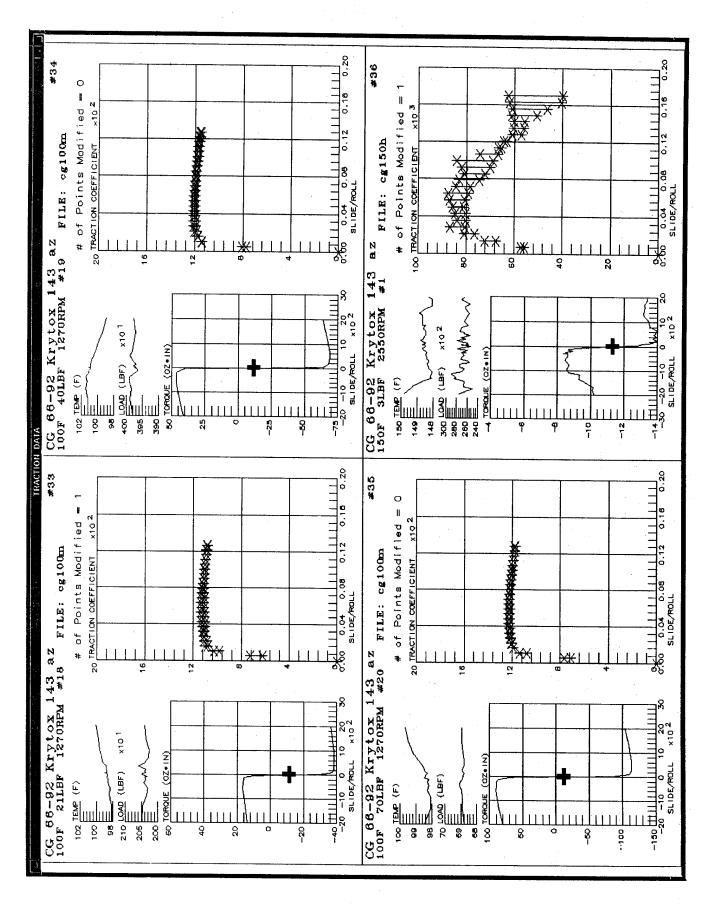


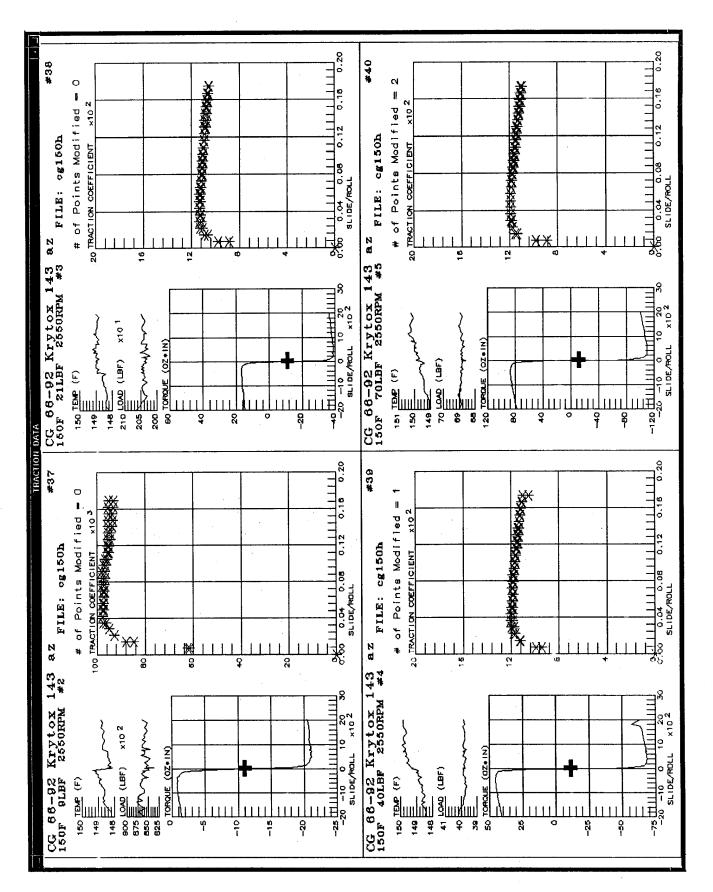


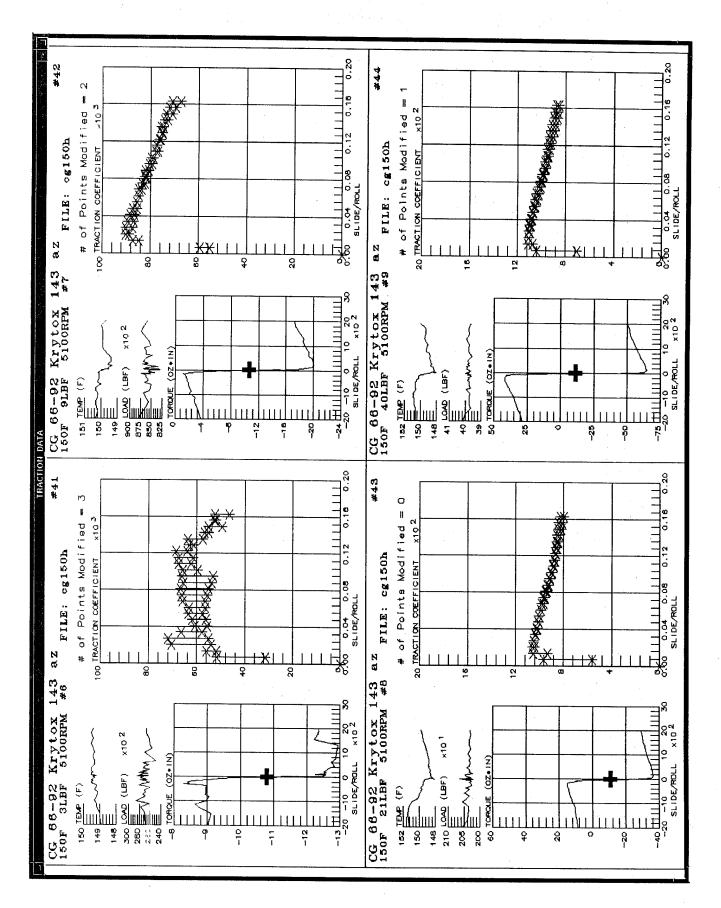


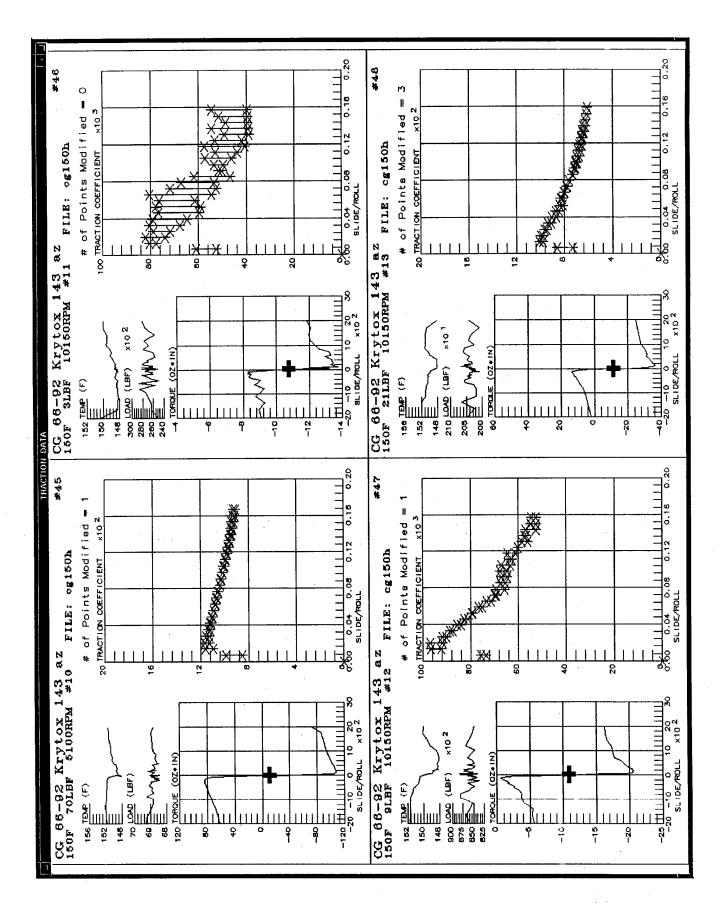


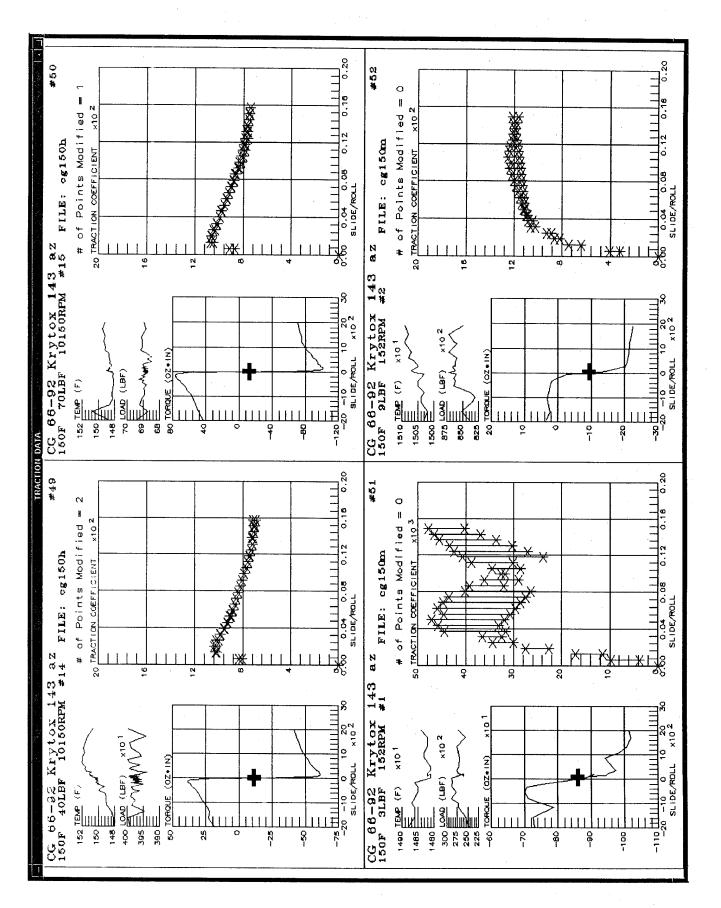


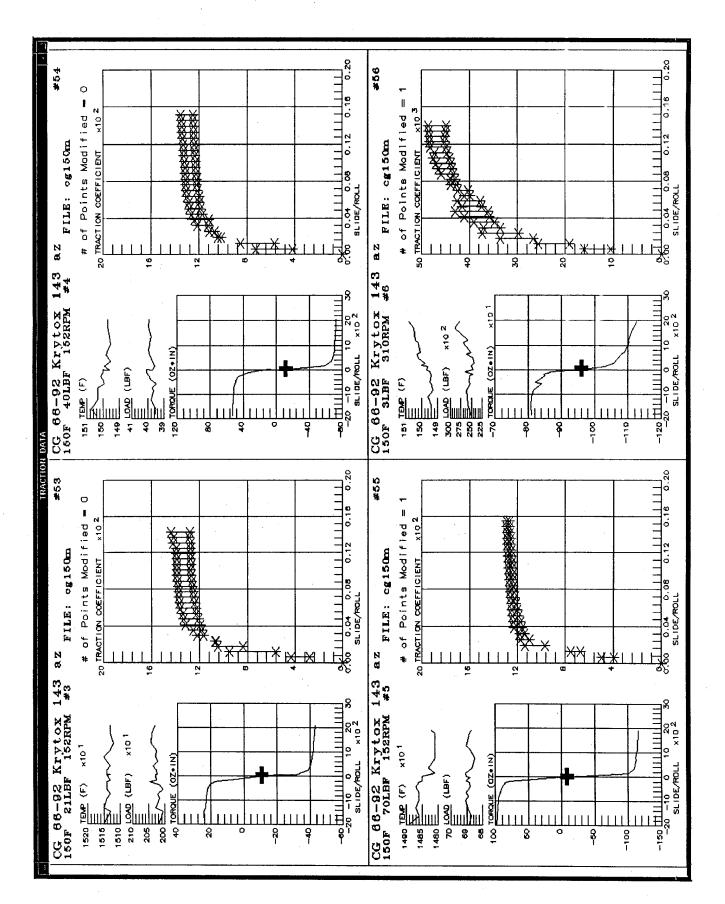


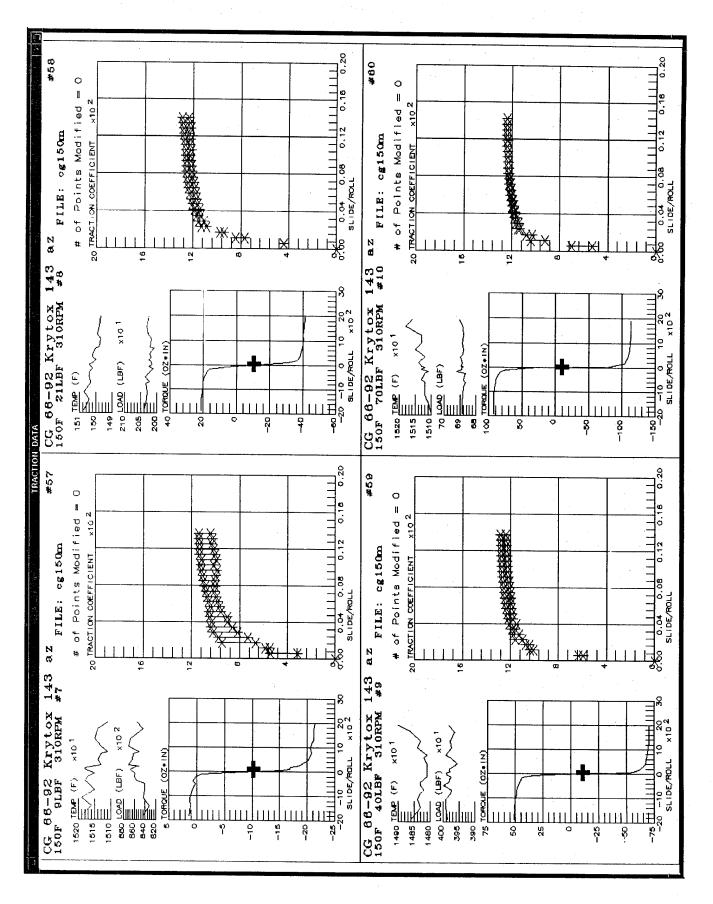


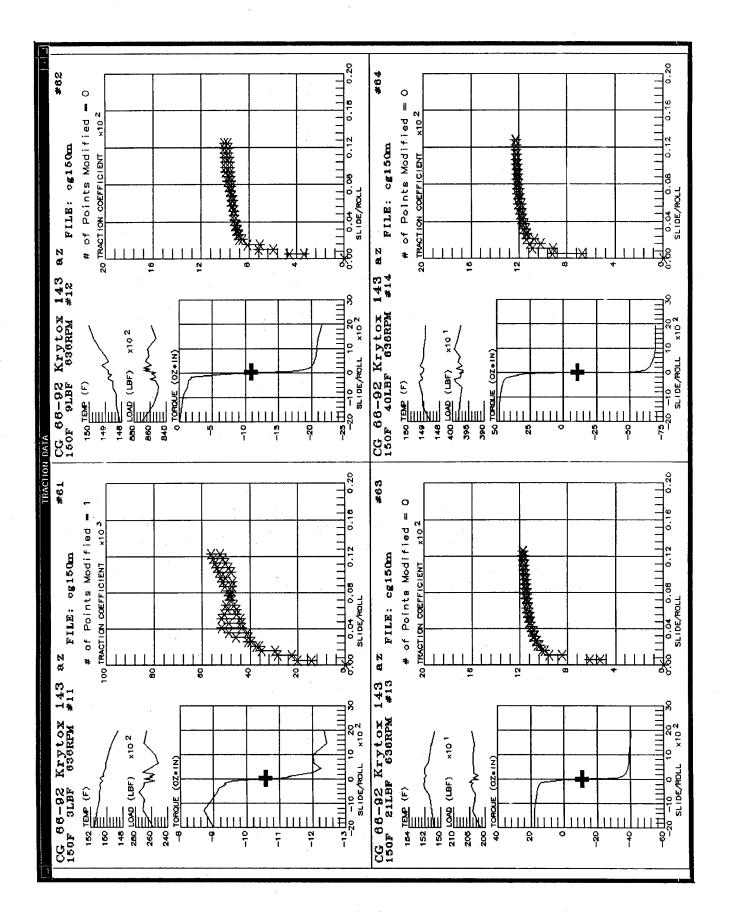


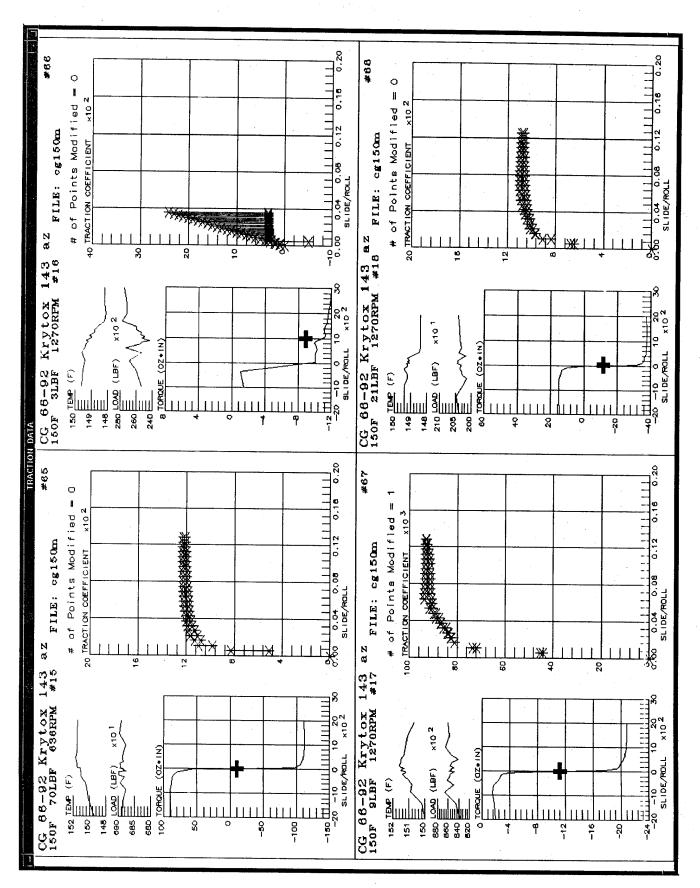


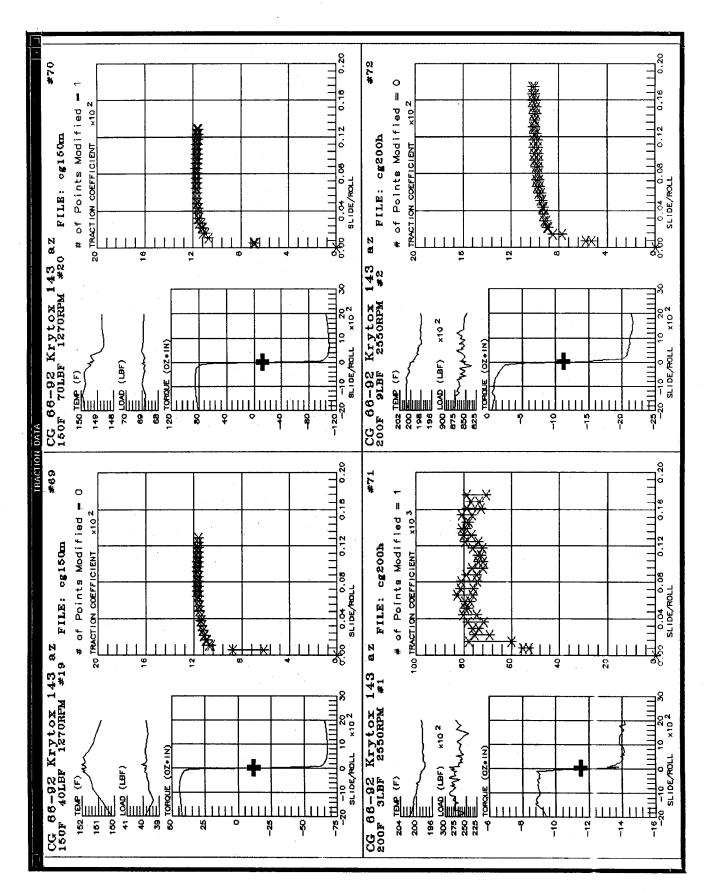


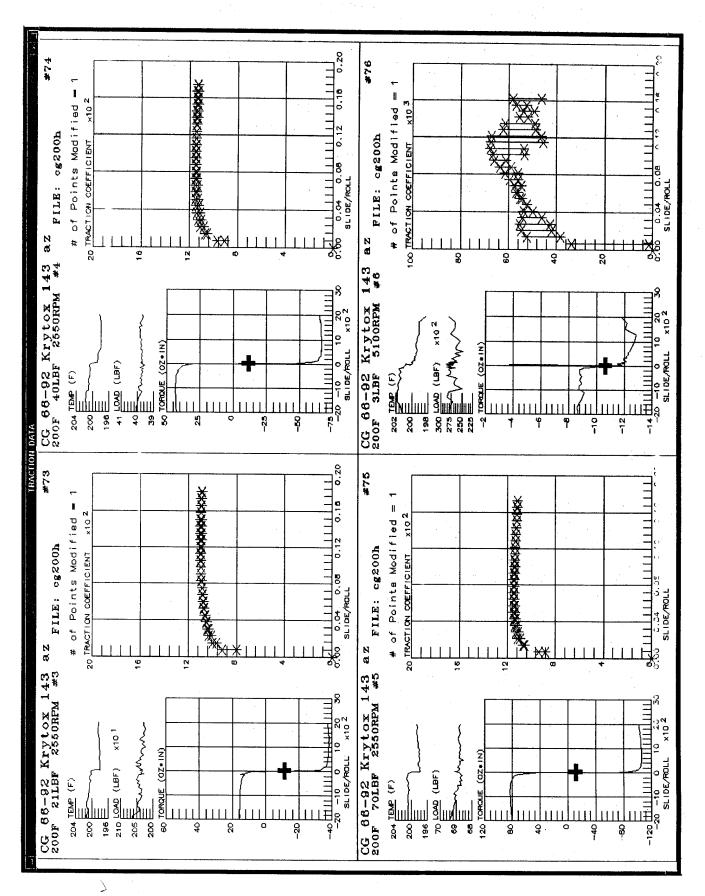


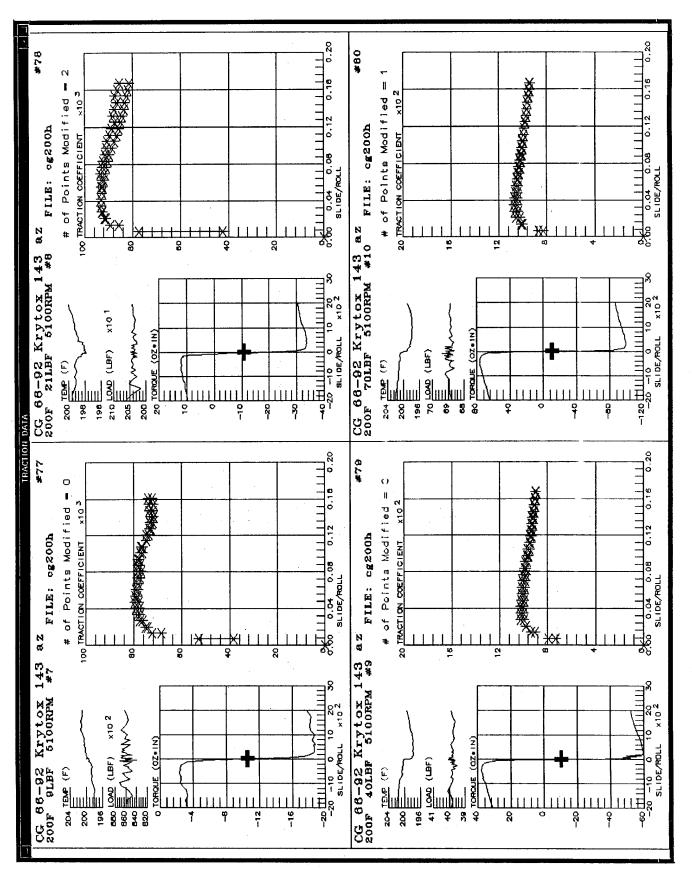


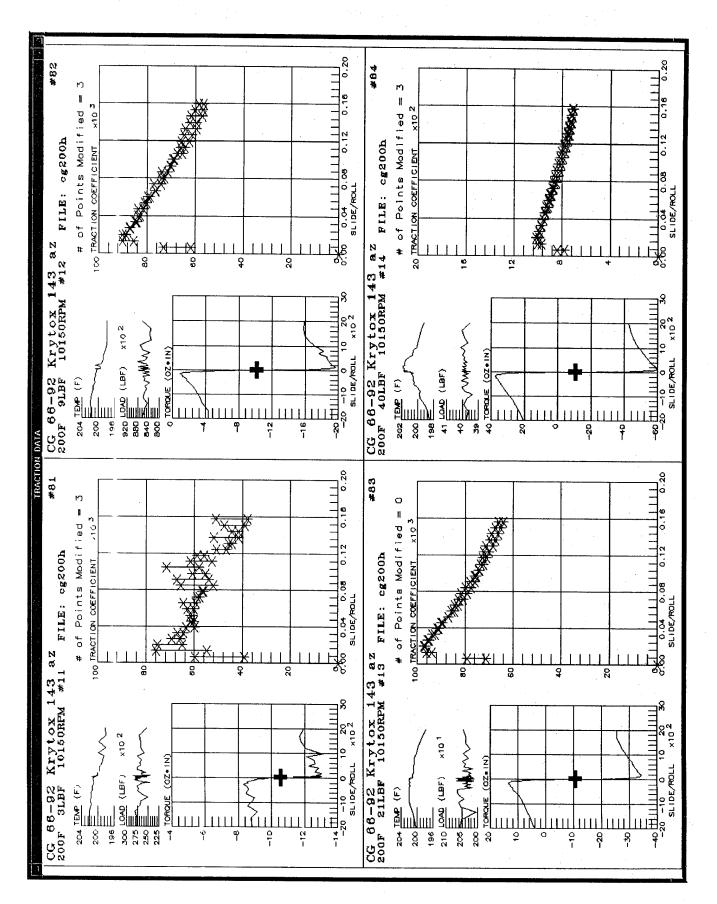


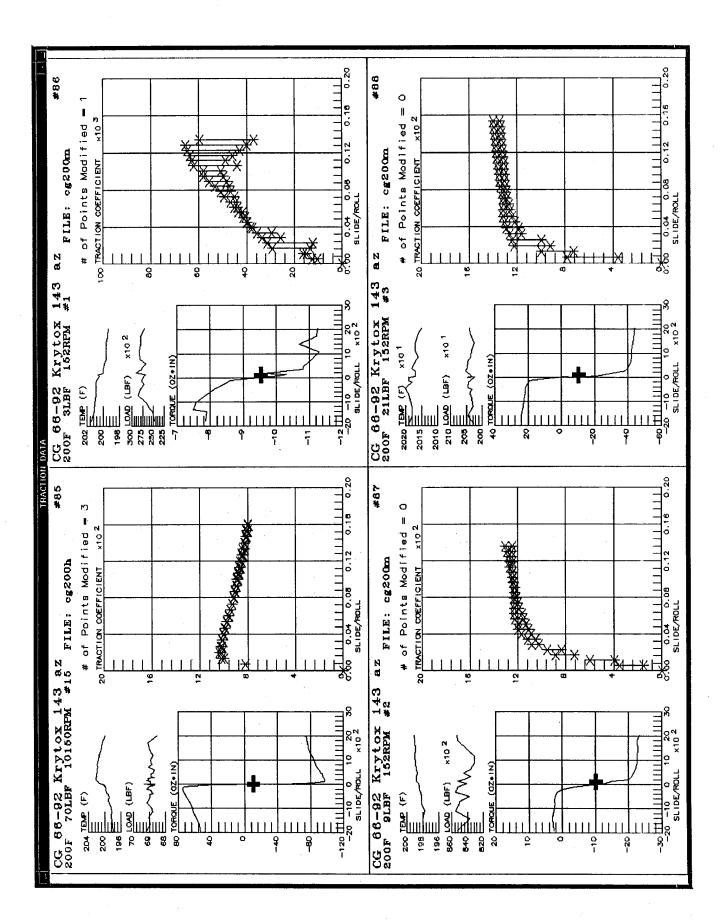


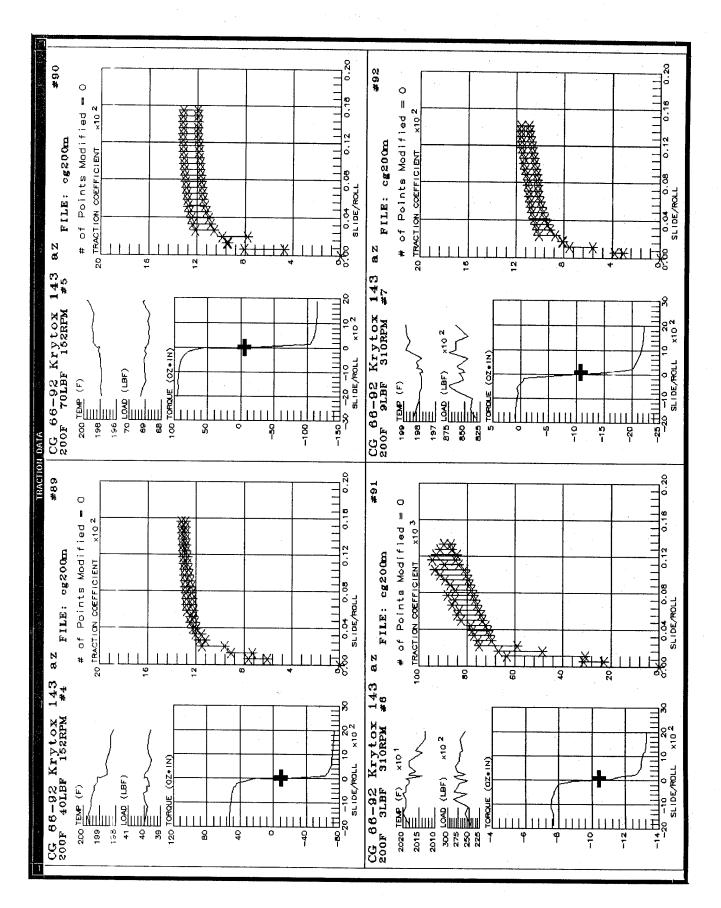


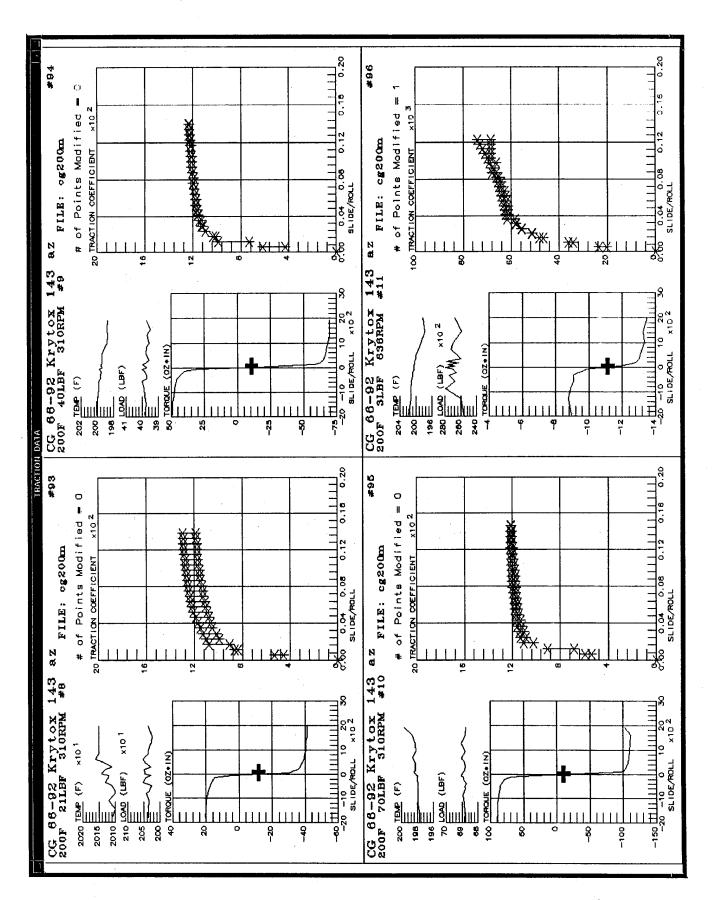


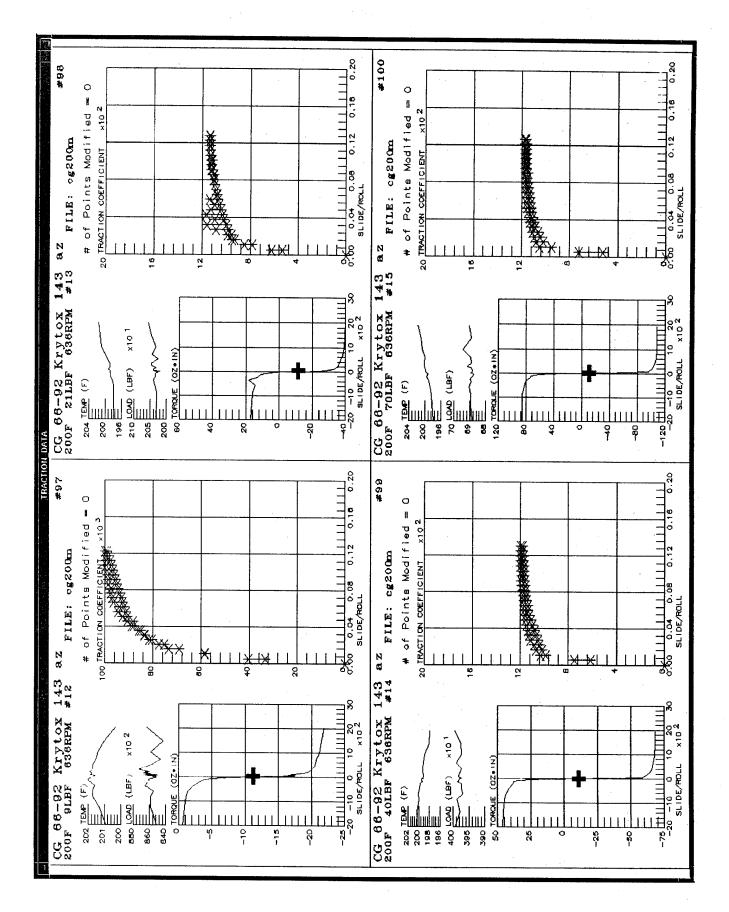


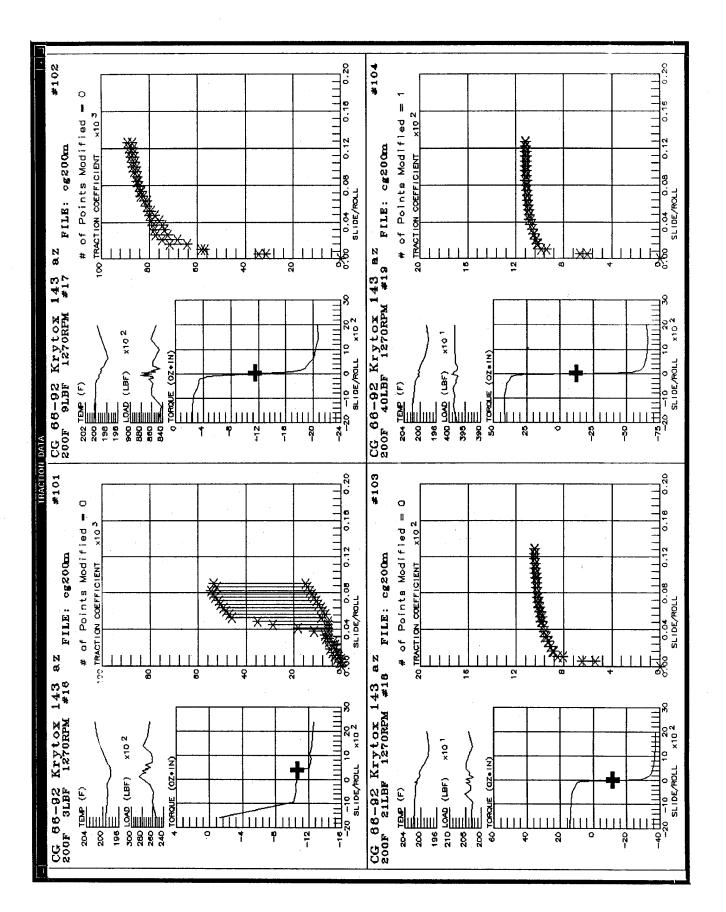


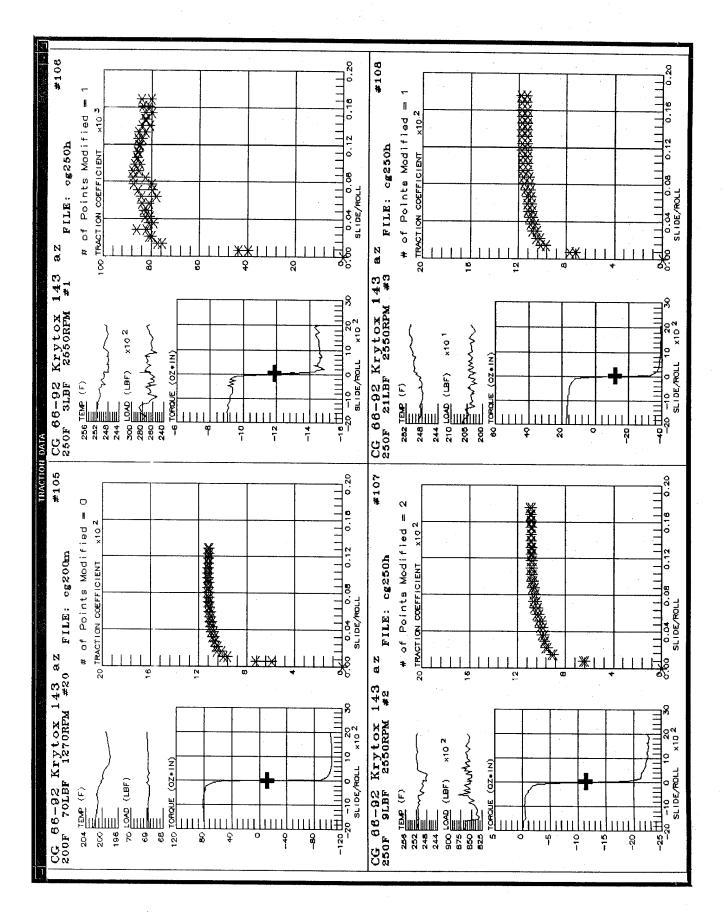


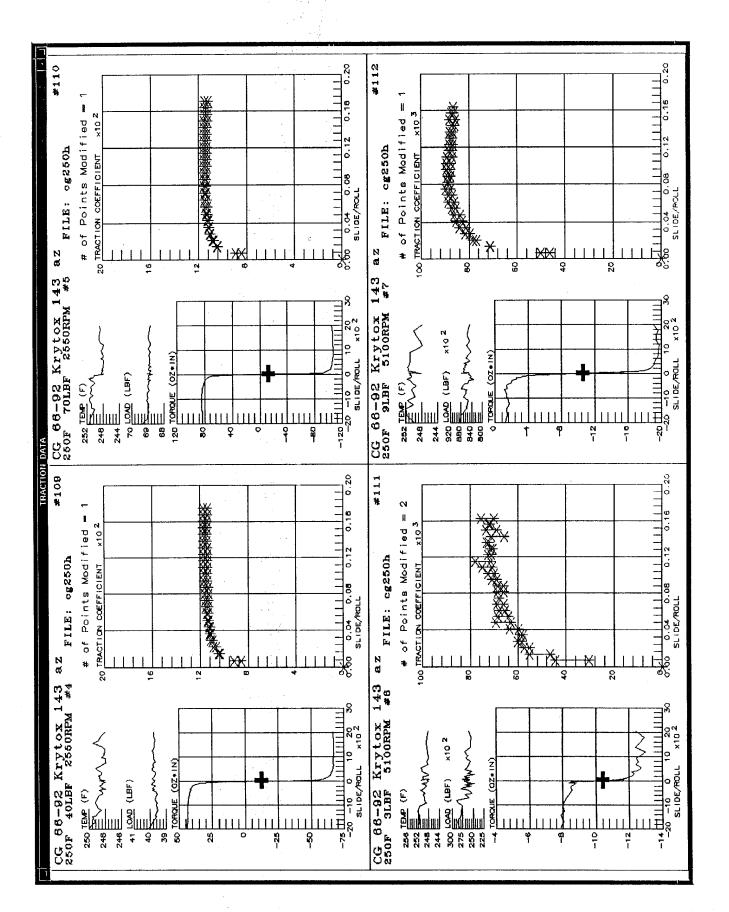


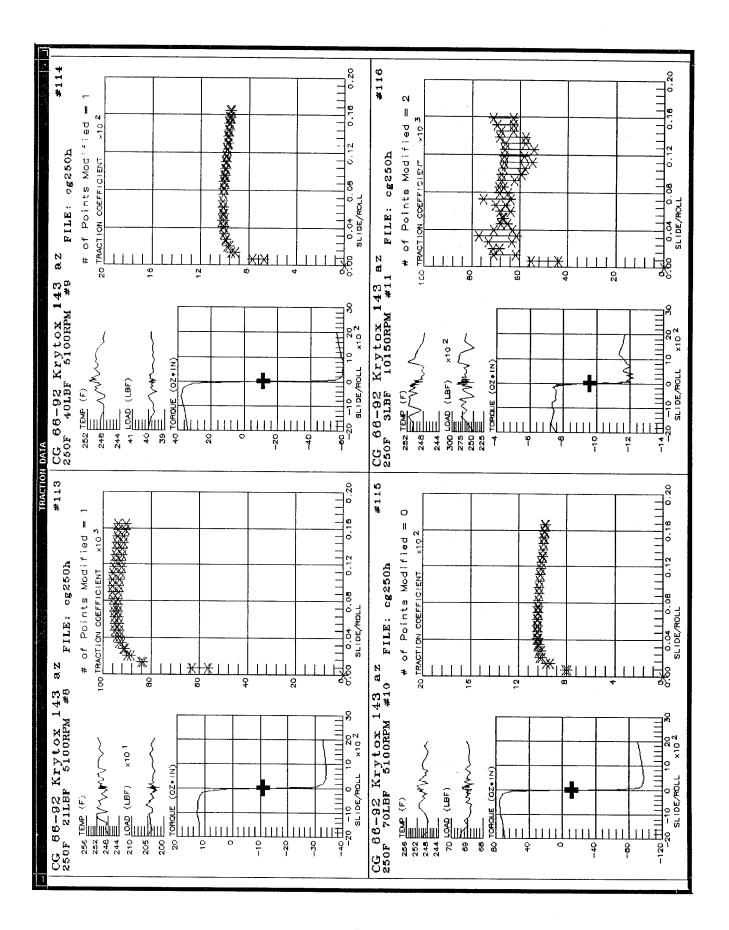


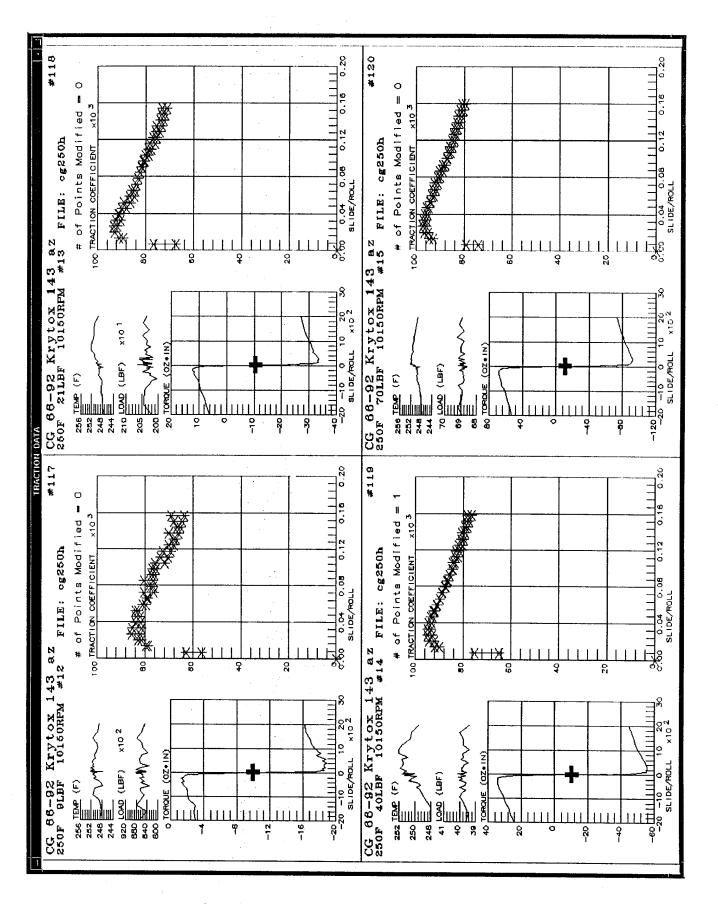


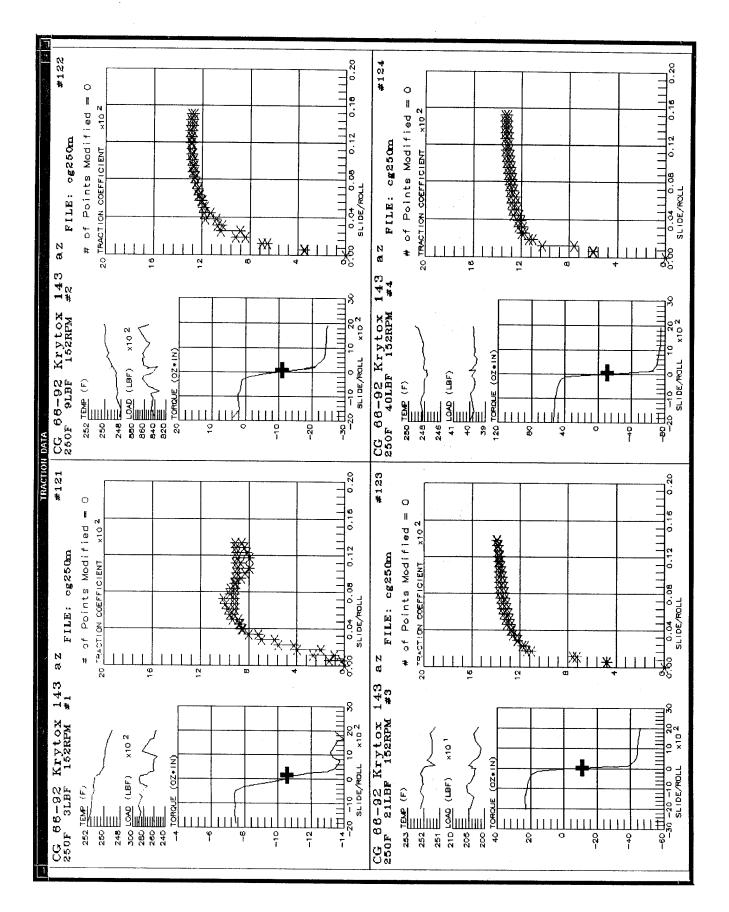


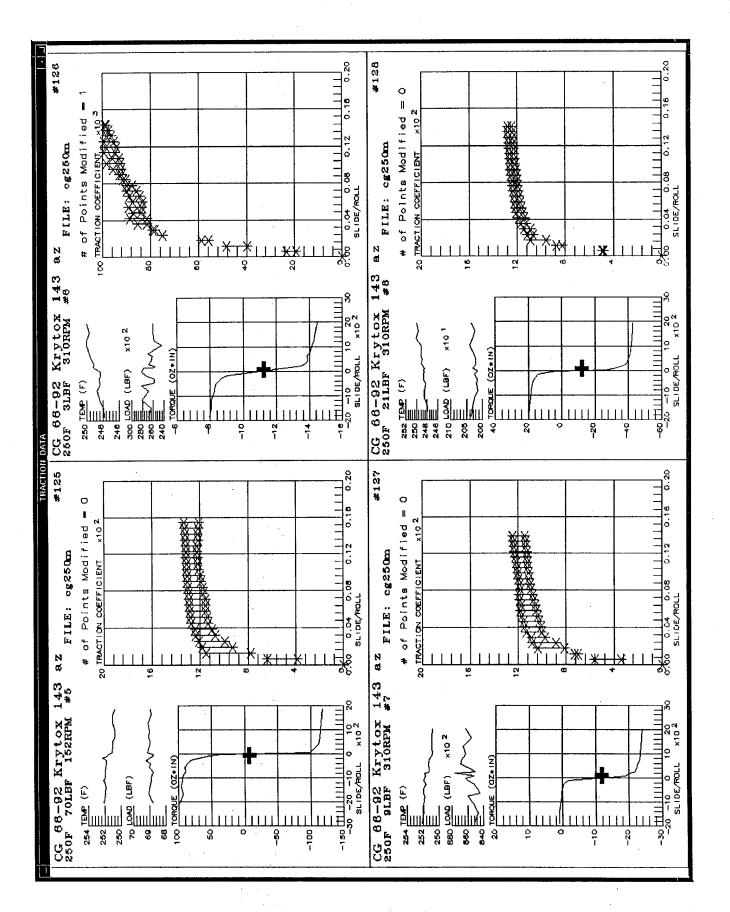


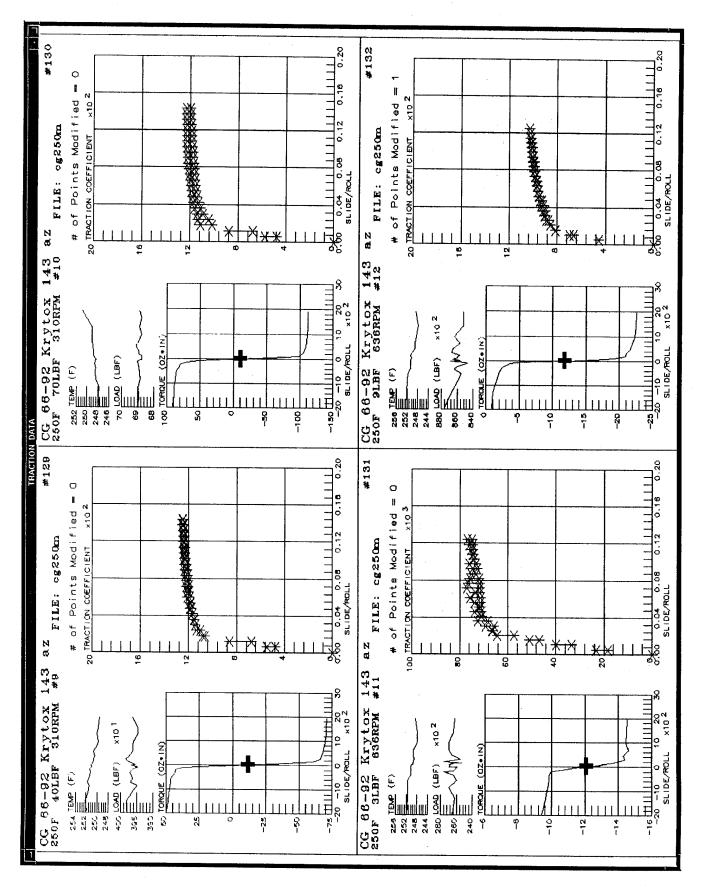


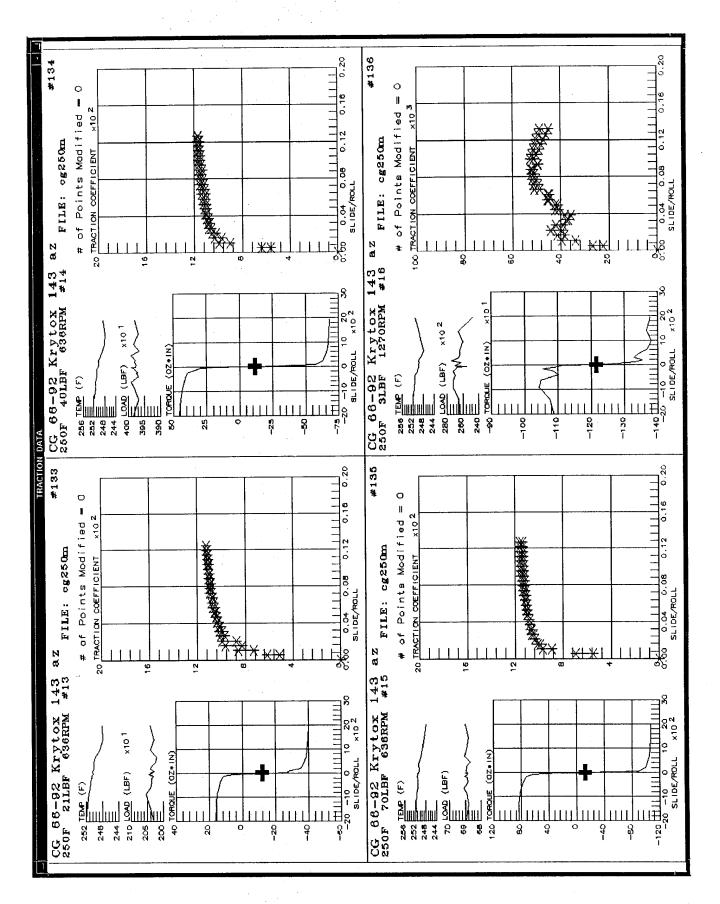


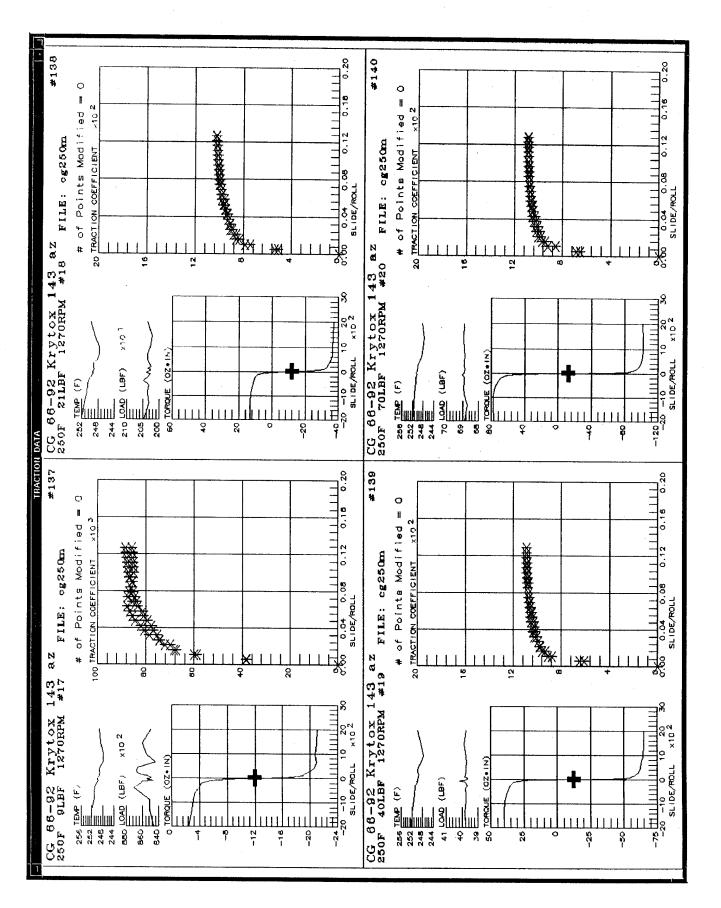


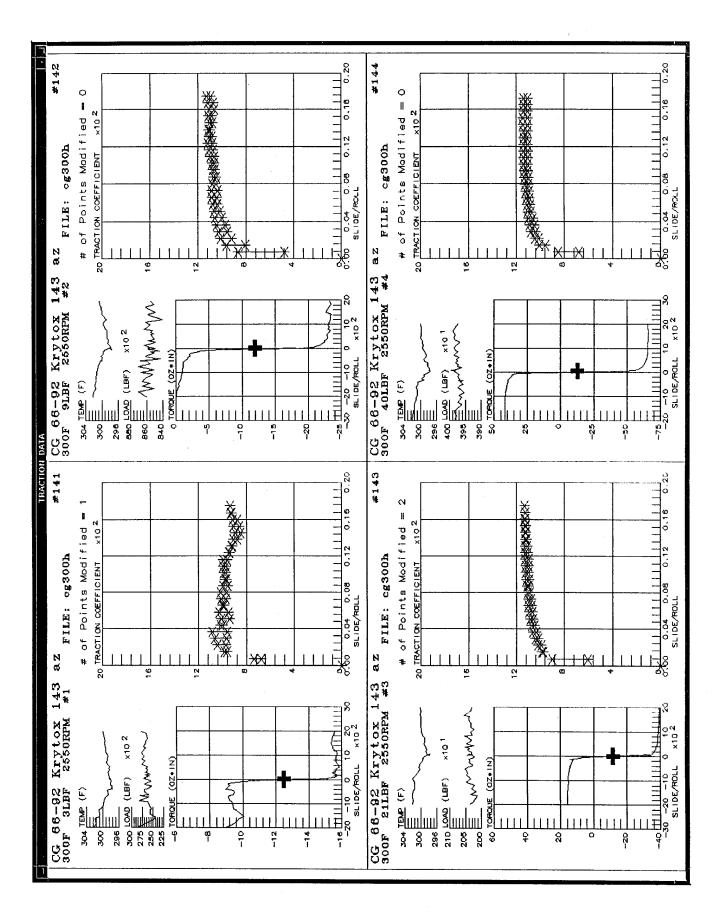


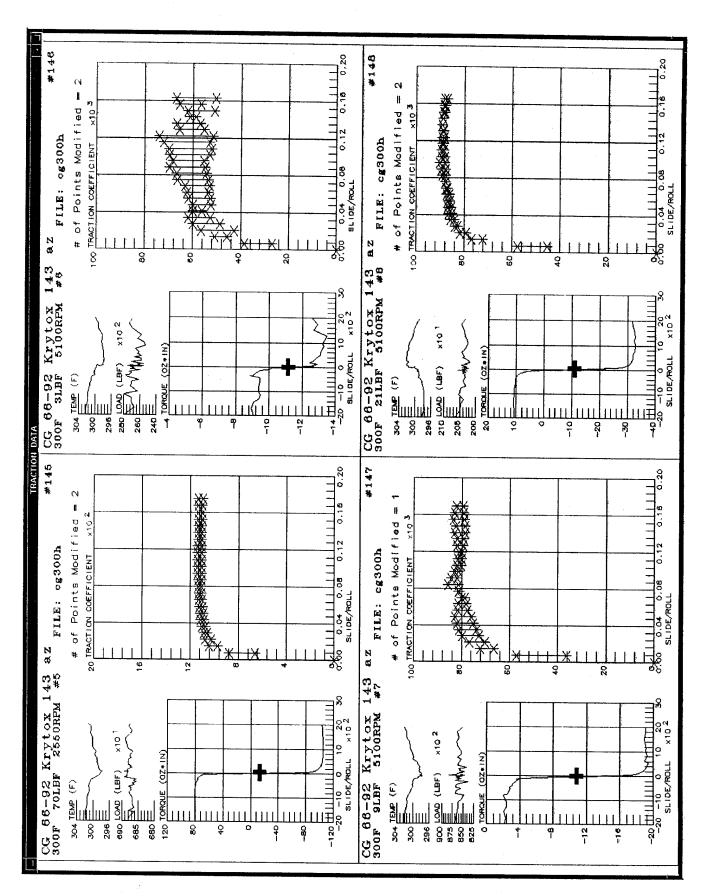


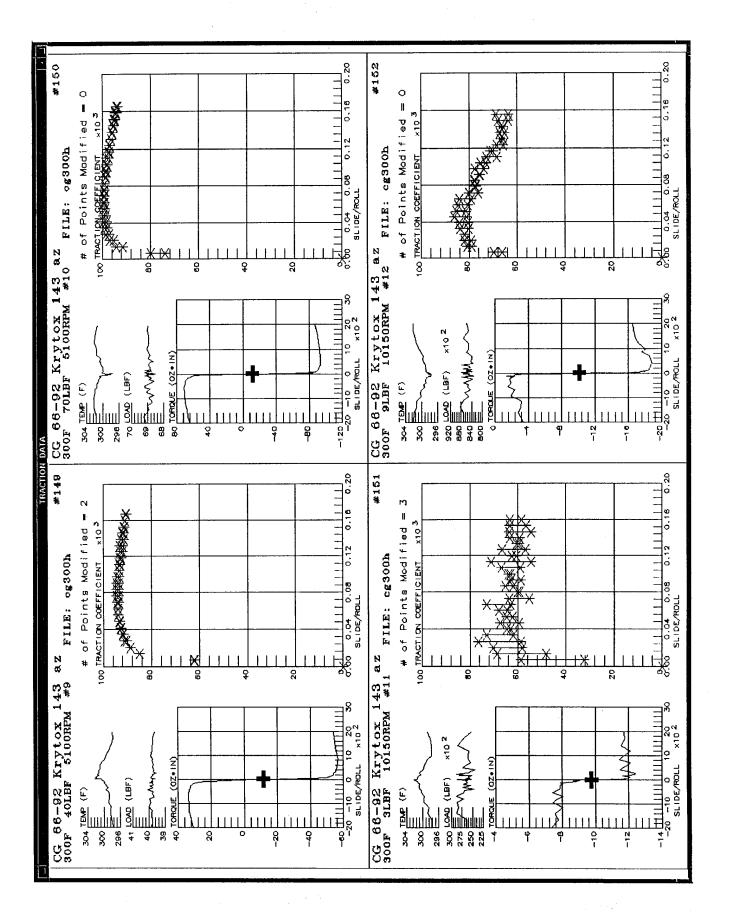


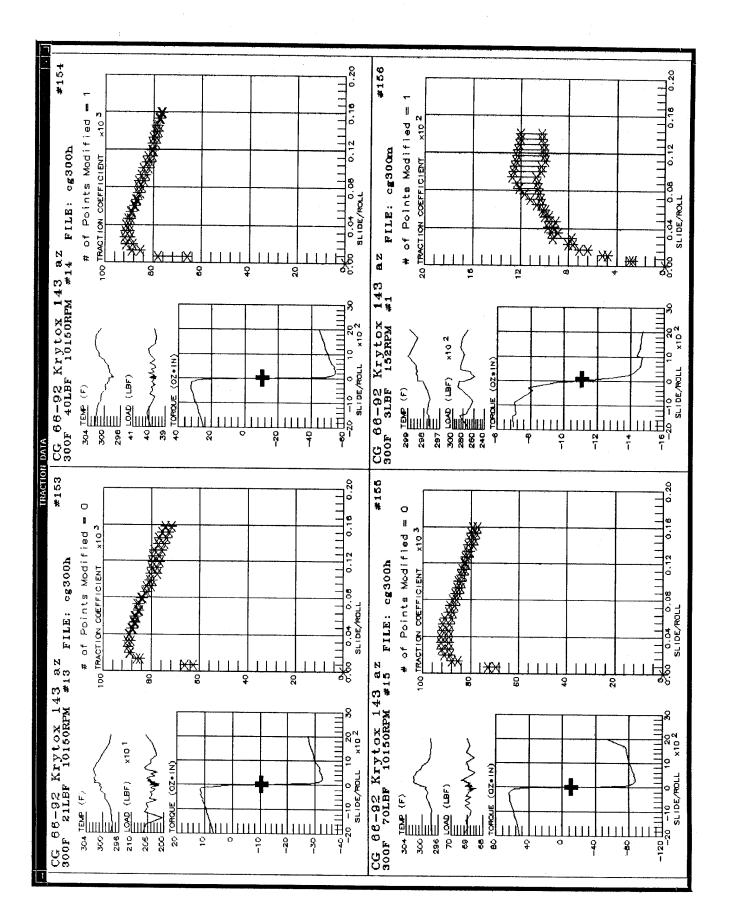


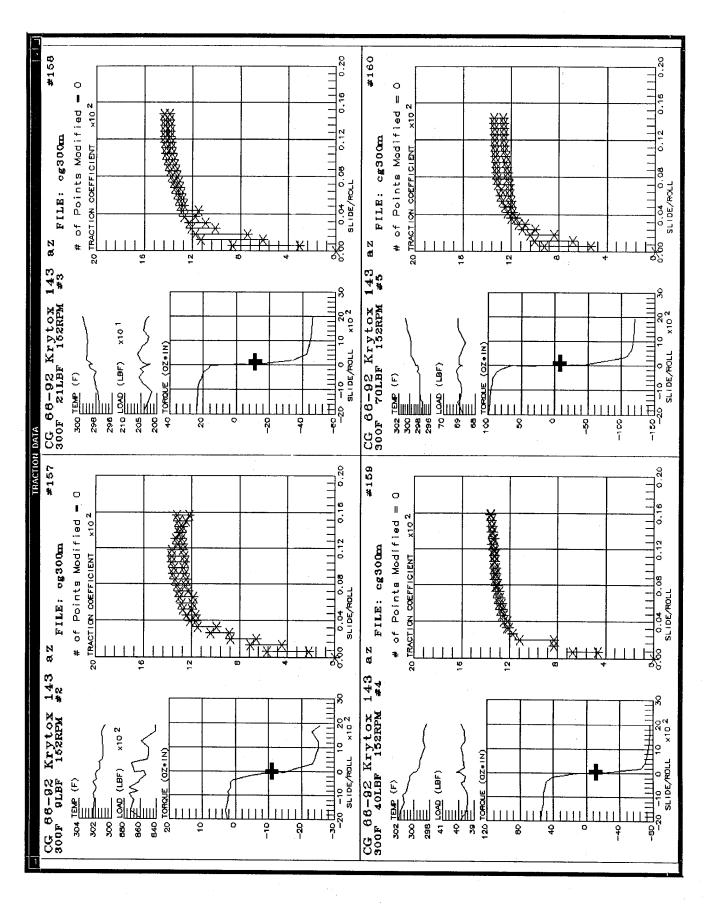


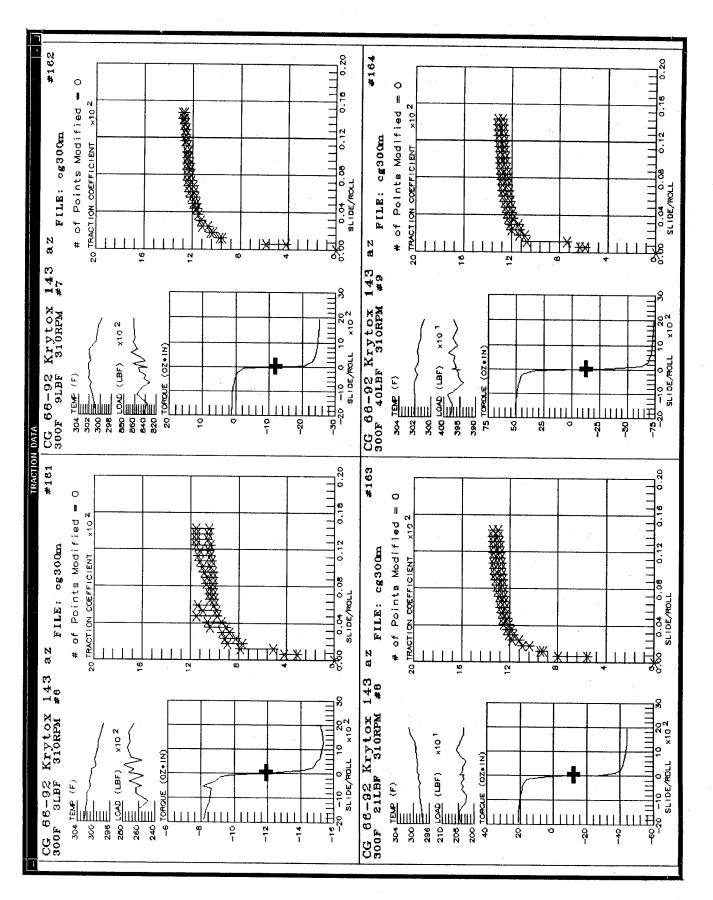


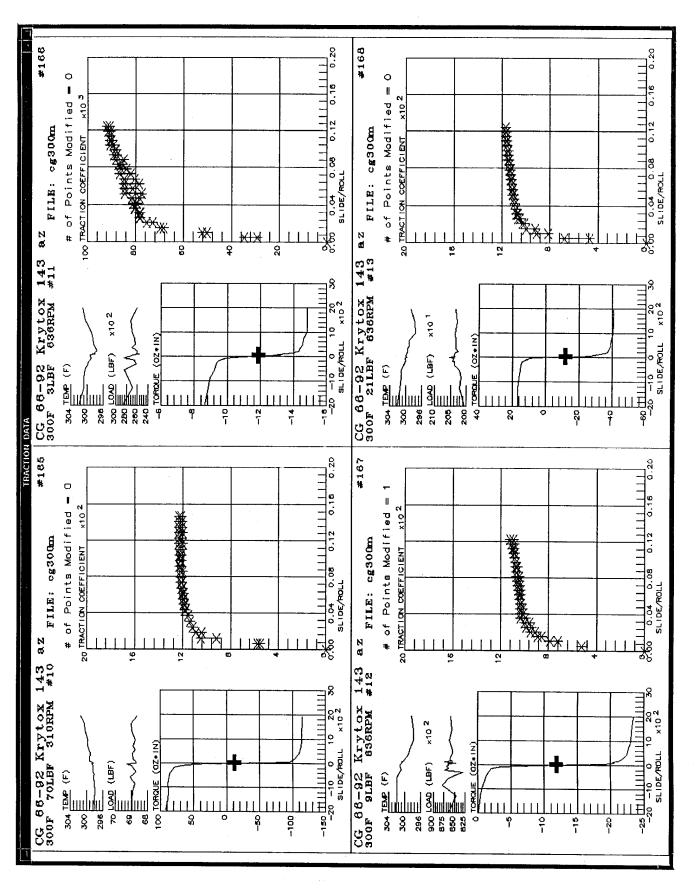


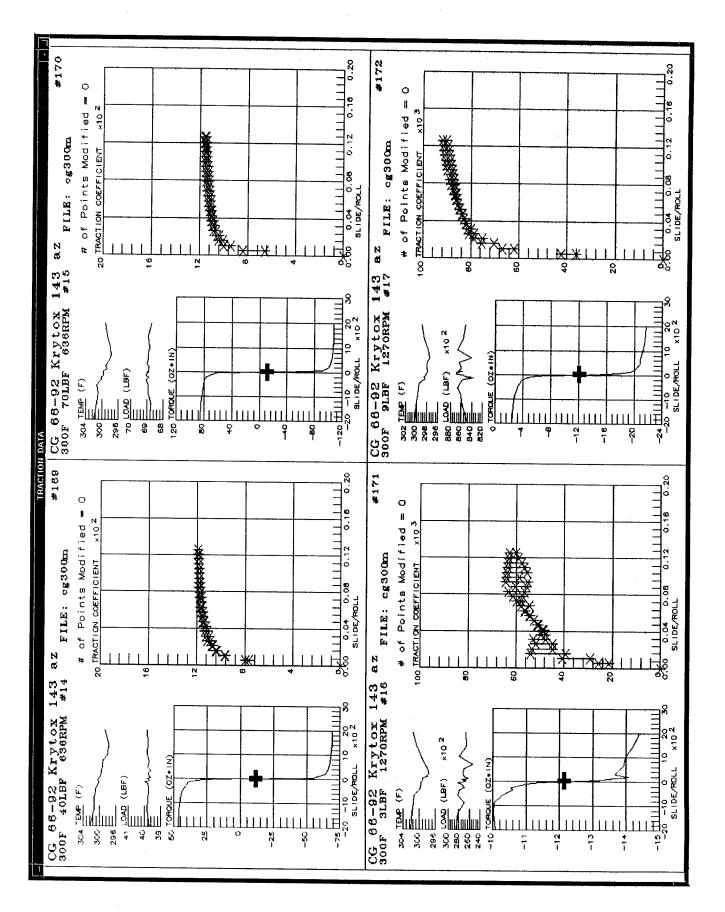


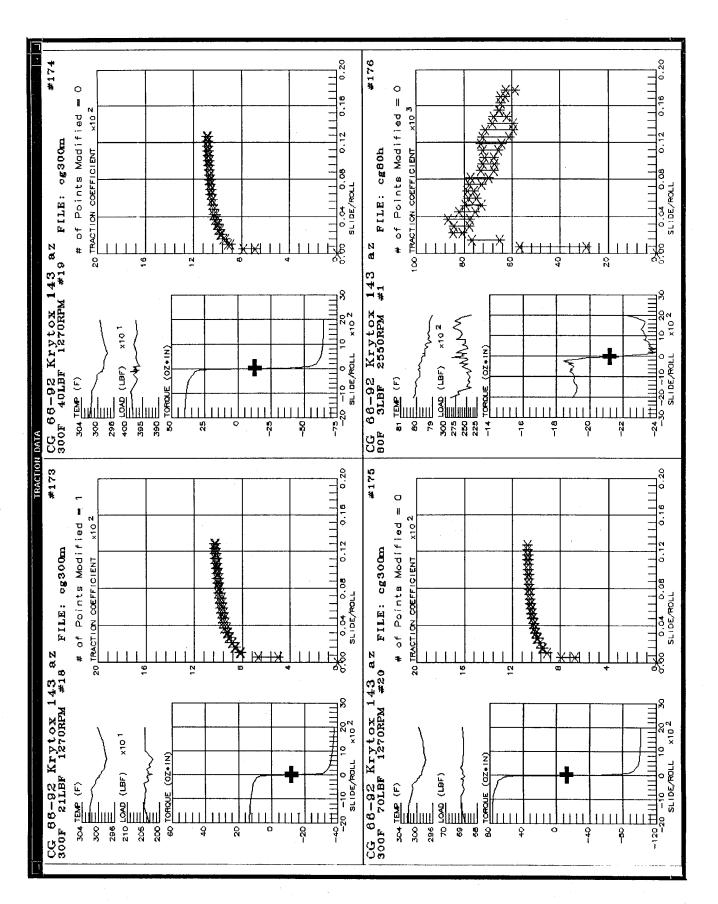


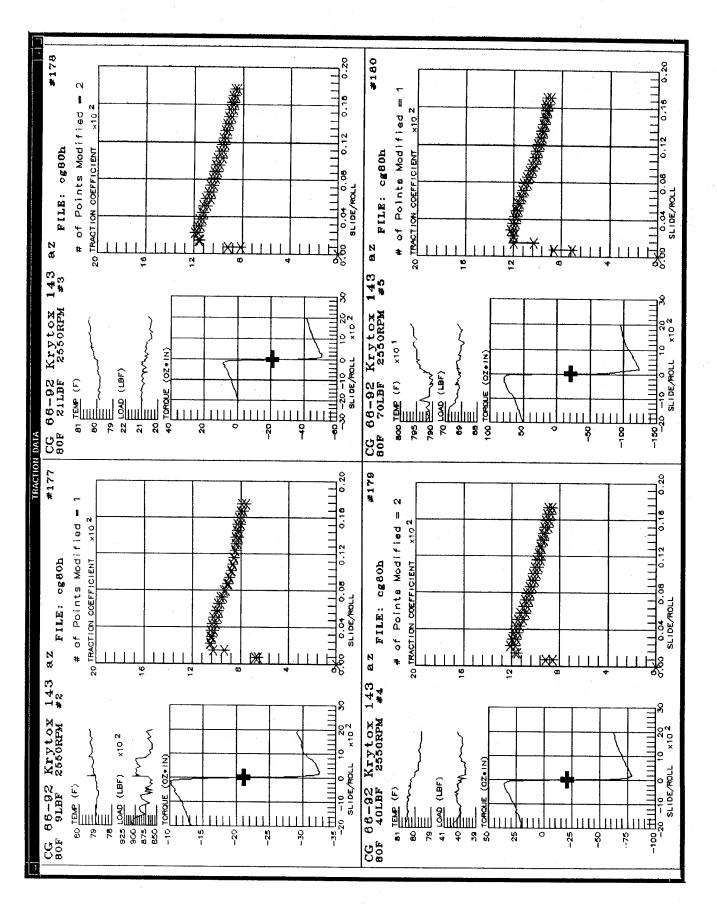


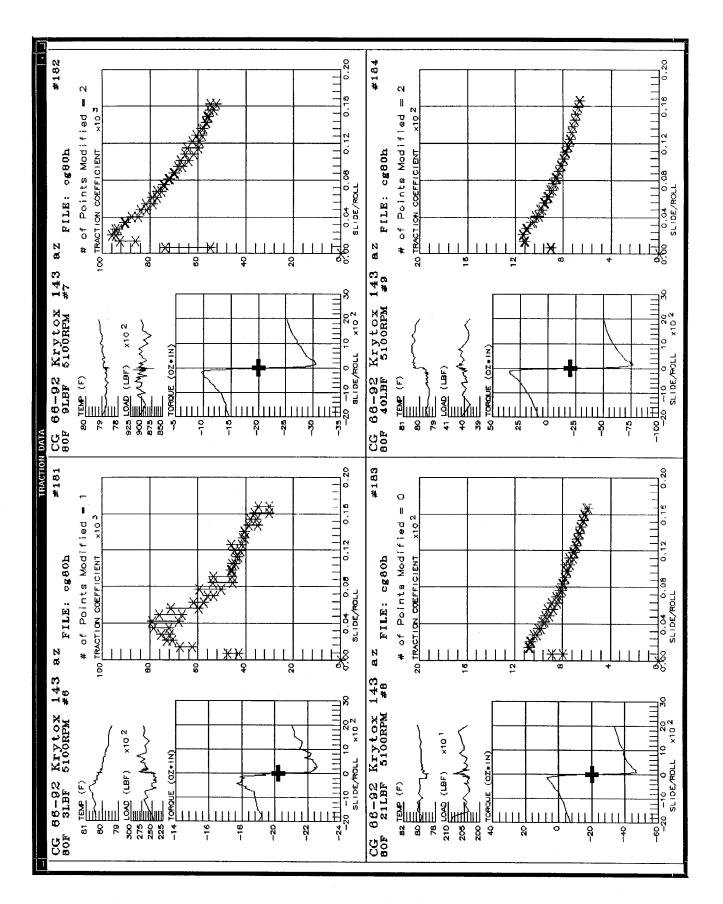


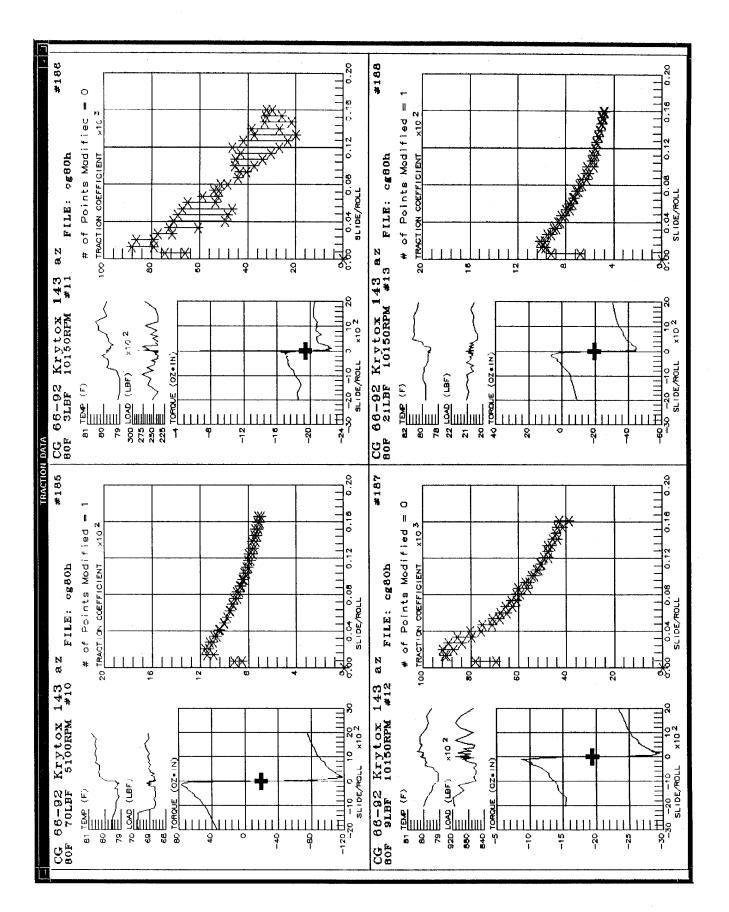


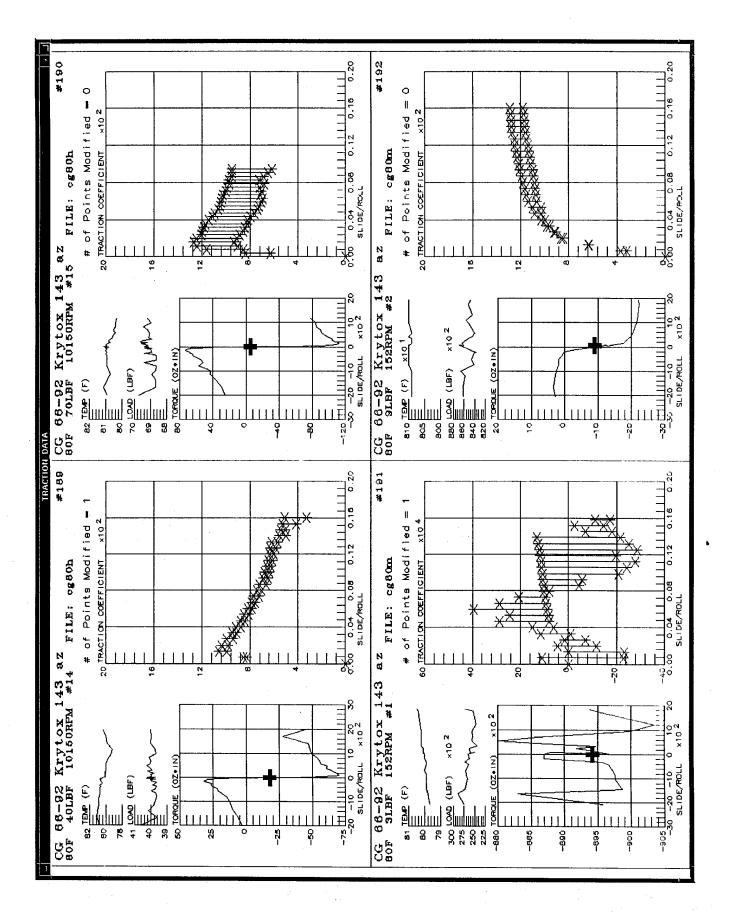


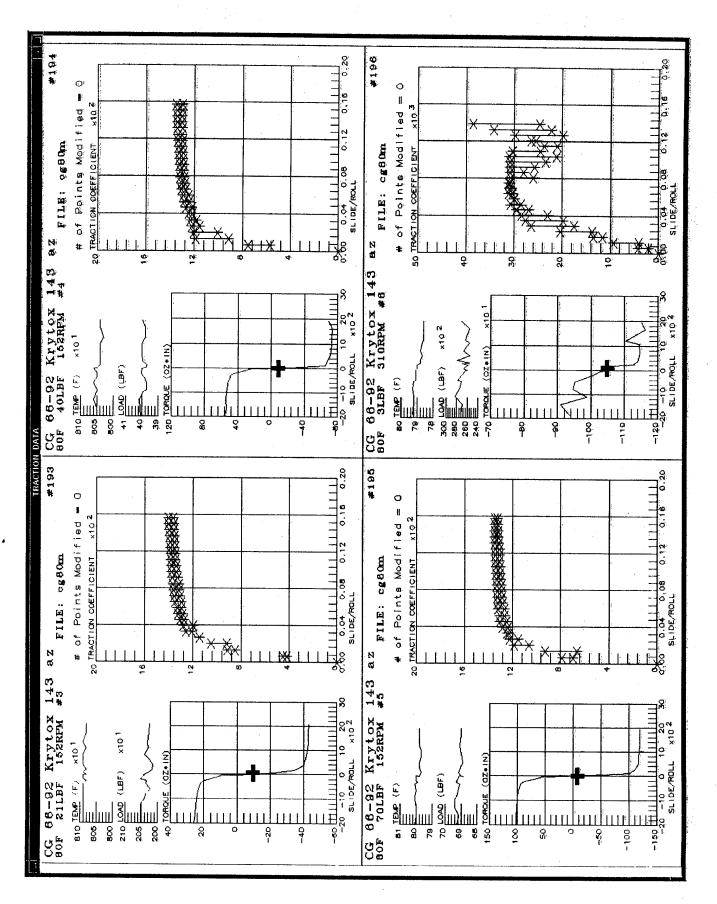


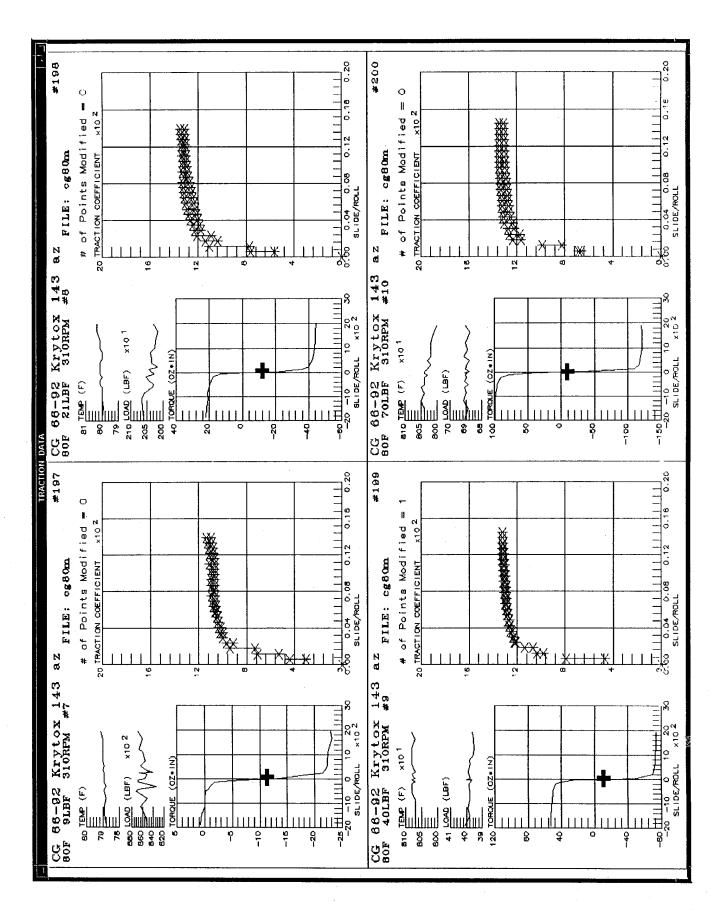


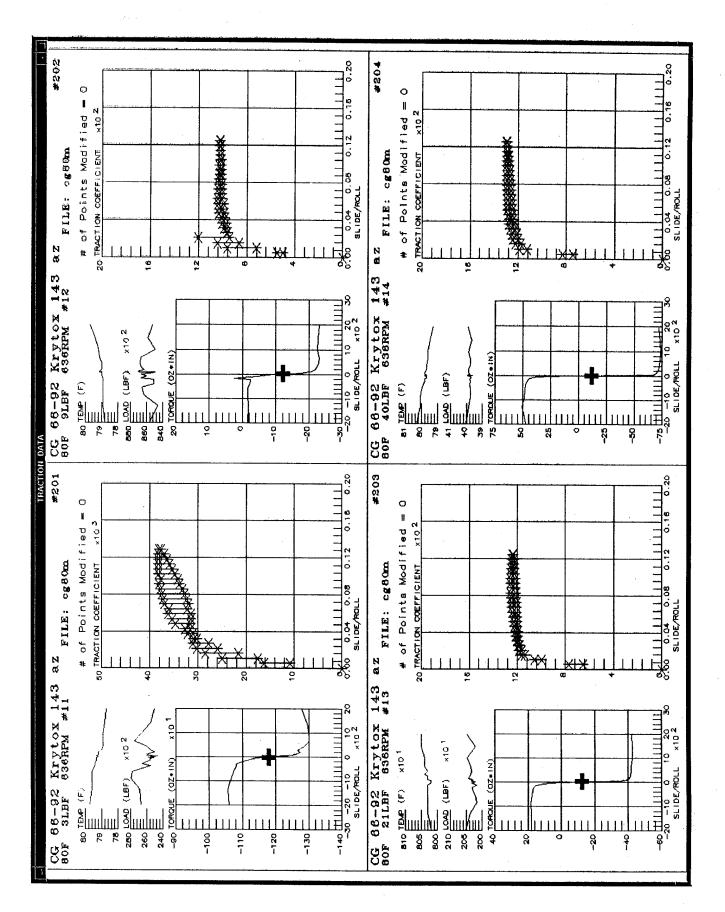


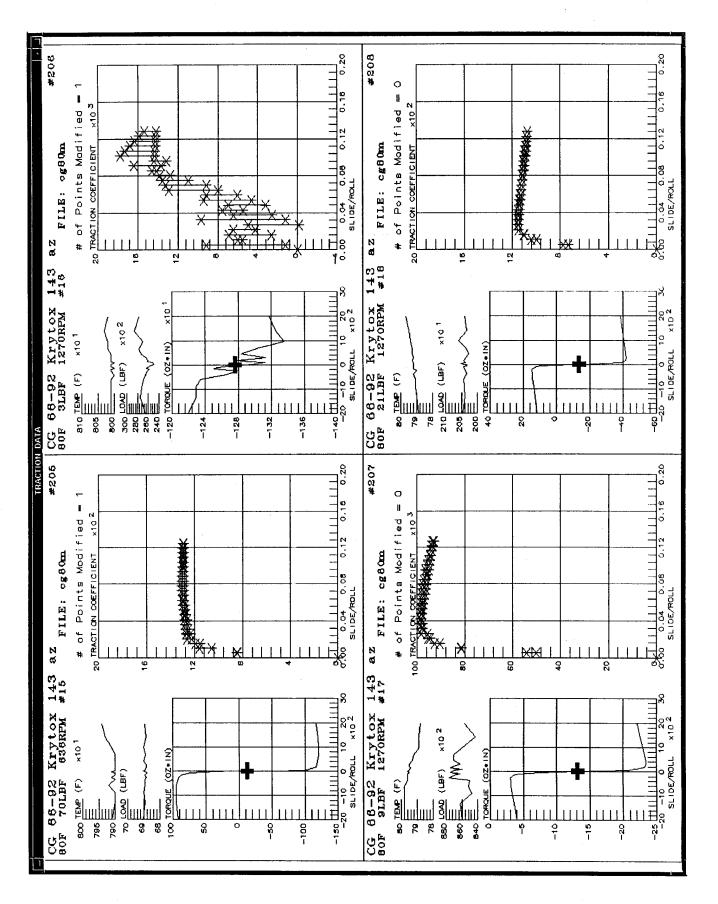


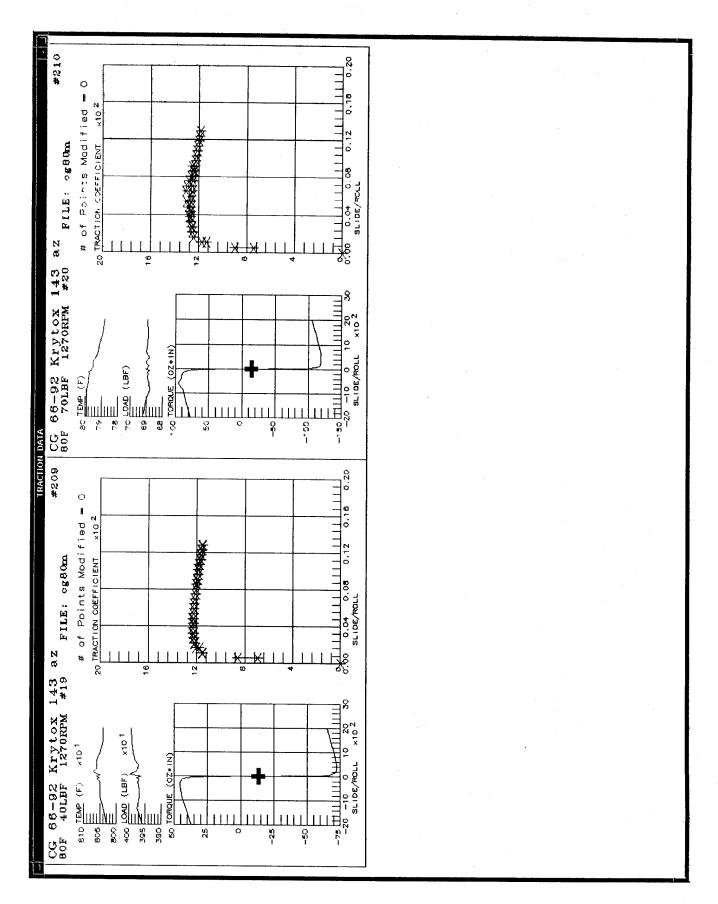


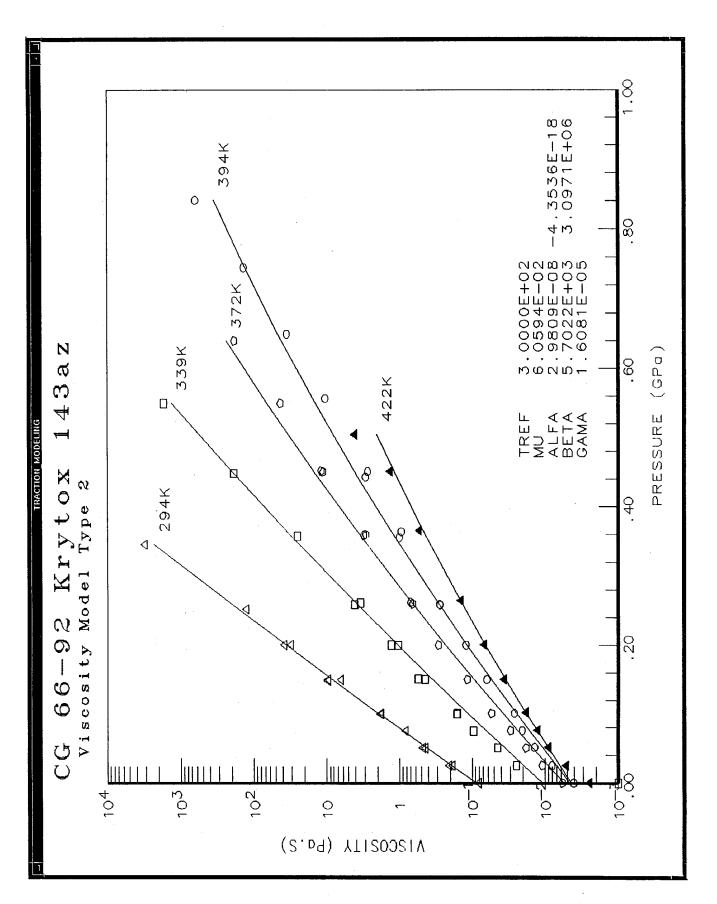


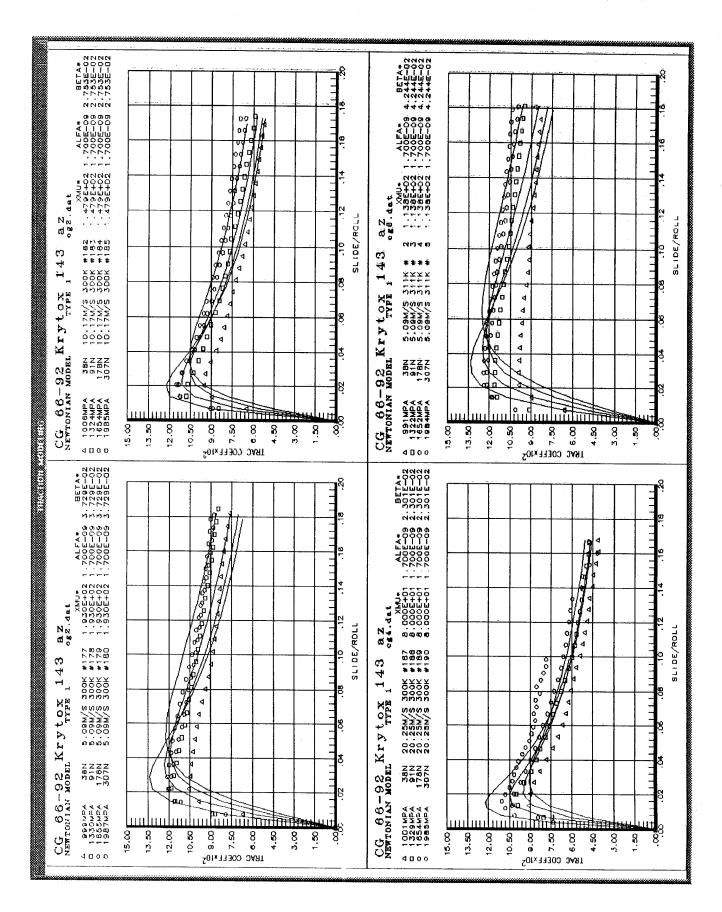


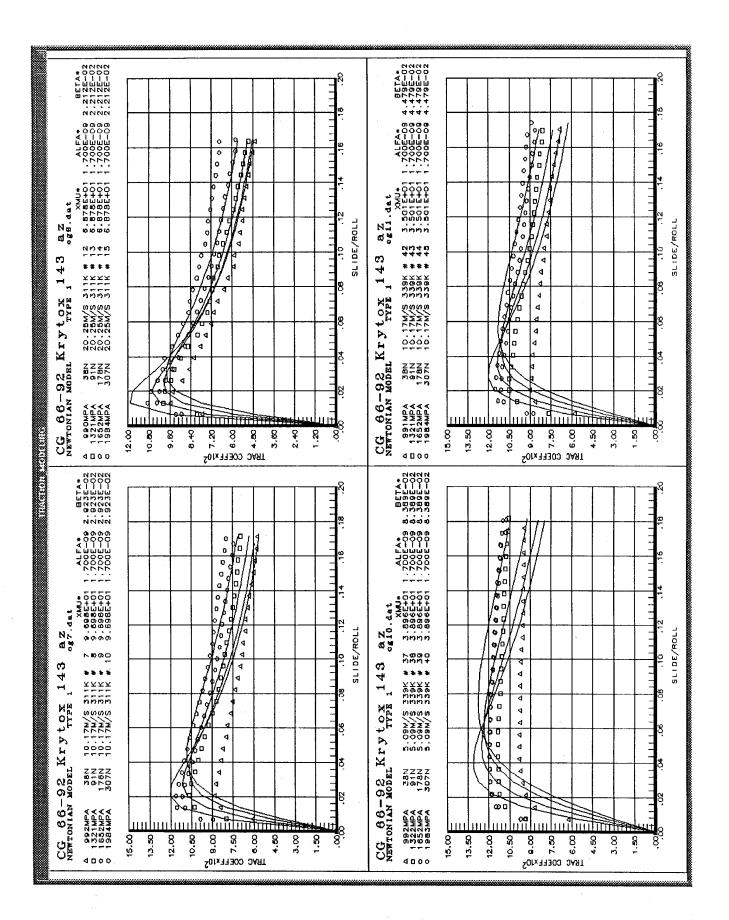


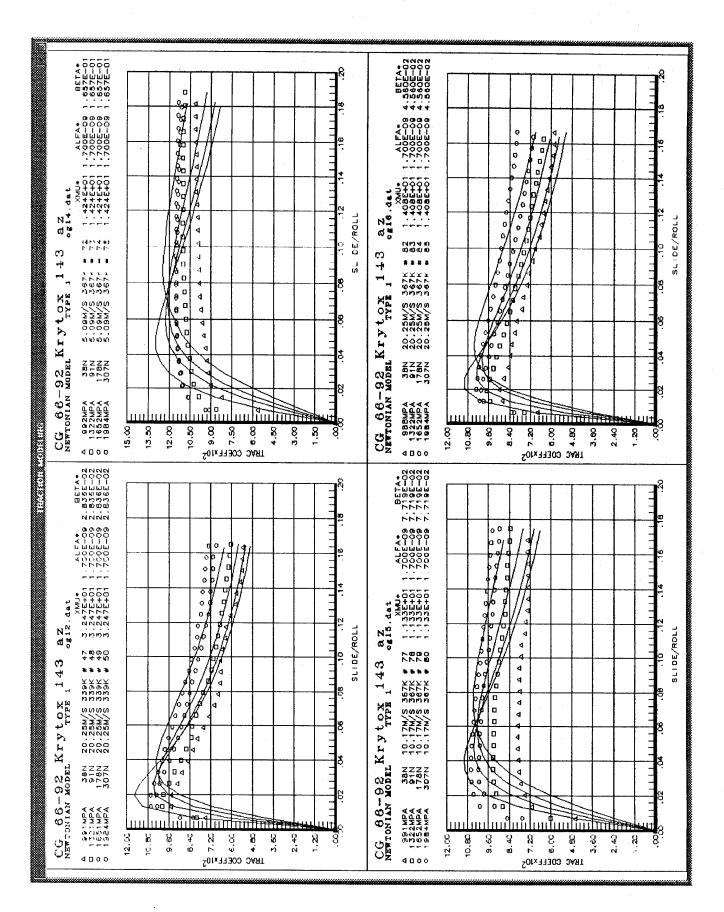


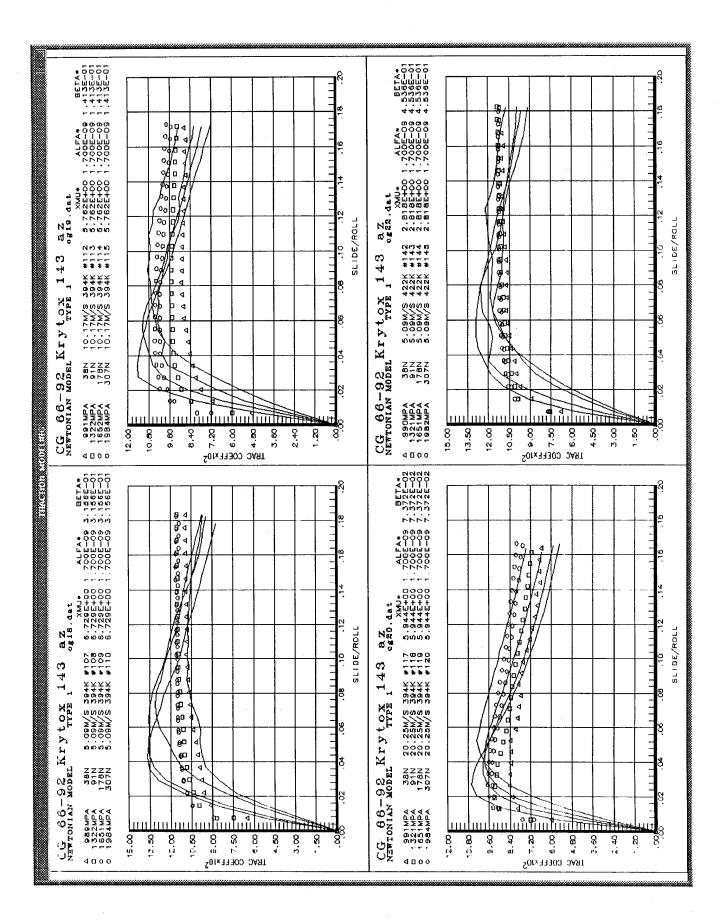


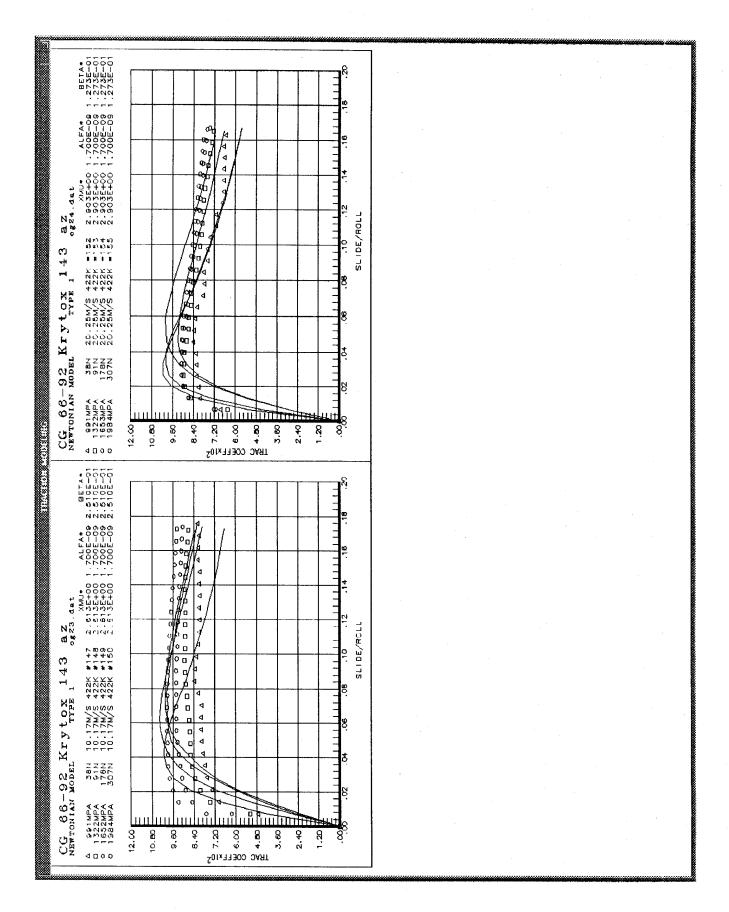












## 5. Traction Data Set D: 78-80 Fomblin Z04 Base

BZ 78-80 Fomblin Z04 base fluid 0.75 0.75 0.76 0.76 Data set name:
Rolling radii [Disks 1 & 2] (in):
Crown radii [Disks 1 & 2] (in):

Number of data sets found = 244

	Temp F	Load lbf	Rpm1	Rpm2	RollRpm	Points	Dataset/Test #
1	80.00	2.70	7259.00	8019.00	7639.00	100	78-80H08 #1
ż	80.00	9.16	7259.00	8019.00	7639.00	100	78-80H08 #2
3	80.00	21.73	7259.00	8019.00	7639.00	100	78-80H08 #3
4	80.00	42.39	7259.00	8019.00	7639.00	100	78-80H08 #4
5	80.00	73.27	7259.00	8019.00	7639.00	100	78-80H08 #5
6	80.00	2.70	9688.00	10708.00	10198.00	100	78-80H08 #6
7	80.00	9.16	9688.00	10708.00	10198.00	100	78-80H08 #7
8	80.00	21.73	9688.00	10708.00	10198.00	100	78-80H08 #8
9	80.00	42.39	9688.00	10708.00	10198.00	100	78-80H08 #9
10	80.00	73.27	9688.00	10708.00	10198.00	100	78-80H08 #10
11	100.00	2.70	7259.00	8019.00	7639.00	100	78-80H10 #1
12	100.00	9.16	7259.00	8019.00	7639.00	100	78-80H10 #2
13	100.00	21.73	7259.00	8019.00	7639.00	100	78-80H10 #3
14	100.00	42.39	7259.00	8019.00	7639.00	100	78-80H10 #4
15	100.00	73.27	7259.00	8019.00	7639.00	100	78-80H10 #5
16	100.00	2.70	9688.00	10708.00	10198.00	100	78-80H10 #6
17	100.00	9.16	9688.00	10708.00	10198.00	100	78-80H10 #7
18	100.00	21.73	9688.00	10708.00	10198.00	100	78-80H10 #8
19	100.00	42.39	9688.00	10708.00	10198.00	100	78-80H10 #9
20	100.00	73.27	9688.00	10708.00	10198.00	100	78-80H10 #10
21	150.00	2.70	7259.00	8019.00	7639.00	100	78-80H15 #1
22	150.00	9.16	7259.00	8019.00	7639.00	100	78-80H15 #2
23	150.00	21.73	7259.00	8019.00	7639.00	100	78-80H15 #3
24	150.00	42.39	7259.00	8019.00	7639.00	100	78-80H15 #4
25	150.00	73.27	7259.00	8019.00	7639.00	100	78-80H15 #5
26	150.00	2.70	9688.00	10708.00	10198.00	100	78-80H15 #6
27	150.00	9.16	9688.00	10708.00	10198.00	100	78-80H15 #7
28	150.00	21.73	9688.00	10708.00	10198.00	100	78-80H15 #8
29	150.00	42.39	9688.00	10708.00	10198.00	100	78-80H15 #9
30	150.00	73.27	9688.00	10708.00	10198.00	100	78-80H15 #10
31	200.00	2.70	7259.00	8019.00	7639.00	100	78-80H20 #1
32	200.00	9.16	7259.00	8019.00	7639.00	100	78-80H20 #2
33	200.00	21.73	7259.00	8019.00	7639.00	100 100	78-80H20 #3 78-80H20 #4
34	200.00	42.39 73.27	7259.00 7259.00	8019.00 8019.00	7639.00 7639.00	100	78-80H20 #5
35 36	200.00	2.70	9688.00	10708.00	10198.00	100	78-80H20 #6
37	200.00	9.16	9688.00	10708.00	10198.00	100	78-80H20 #7
38	200.00	21.73	9688.00	10708.00	10198.00	100	78-80H20 #8
39	200.00	42.39	9688.00	10708.00	10198.00	100	78-80H20 #9
40	200.00	73.27	9688.00	10708.00	10198.00	100	78-80H20 #10
41	250.00	2.70	7259.00	8019.00	7639.00	100	78-80H25 #1
42	250.00	9.16	7259.00	8019.00	7639.00	100	78-80H25 #2
43	250.00	21.73	7259.00	8019.00	7639.00	100	78-80H25 #3
44	250.00	42.39	7259.00	8019.00	7639.00	100	78-80H25 #4
45	250.00	73.27	7259.00	8019.00	7639.00	100	78-80H25 #5
46	250.00	2.70	9688.00	10708.00	10198.00	100	78-80H25 #6
47	250.00	9.16	9688.00	10708.00	10198.00	100	78-80H25 #7
48	250.00	21.73	9688.00	10708.00	10198.00	100	78-80H25 #8
49	250.00	42.39	9688.00	10708.00	10198.00	100	78-80H25 #9
50	250.00	73.27	9688.00	10708.00	10198.00	100	78-80H25 #10

\$\frac{5}{2}   \$250.00		Temp F	Load	Rpm1	Rpm2	RollRpm	Points	Dataset/Test #
53 250.00							100	78-80H25 #11
\$\frac{5}{52}   \$250.00								
55   50   00								
55         300.00         2.70         7259.00         8019.00         7639.00         100         78-80030 #2           58         300.00         9.16         7259.00         8019.00         7639.00         100         78-80030 #2           59         300.00         42.39         7259.00         8019.00         7639.00         100         78-80030 #2           60         300.00         72.77         7559.00         8019.00         7639.00         100         78-80130 #3           61         300.00         2.70         7688.00         10708.00         10198.00         100         78-80150 #5           62         300.00         21.73         7688.00         10708.00         10198.00         100         78-80150 #5           63         300.00         21.73         72.00         80.00         76.00         100         78-80150 #5           64         300.00         2.70         72.00         80.00         76.00         100         78-80108 #3           65         80.00         21.73         72.00         80.00         76.00         100         78-80108 #3           66         80.00         21.73         72.00         80.00         76.00         100								
57         300.00         21.73         7259.00         8019.00         7639.00         100         78-80930 #3           58         300.00         21.73         7259.00         8019.00         7639.00         100         78-80830 #3           59         300.00         73.27         7259.00         8019.00         7639.00         100         78-80830 #3           61         300.00         21.70         9688.00         10708.00         10198.00         100         78-808130 #6           62         300.00         21.73         9688.00         10708.00         10198.00         100         78-808130 #6           63         300.00         21.73         79688.00         10708.00         10198.00         100         78-808130 #8           64         300.00         2.70         72.00         80.00         76.00         100         78-808130 #8           65         80.00         21.73         72.00         80.00         76.00         100         78-808130 #8           68         80.00         72.00         80.00         76.00         100         78-80108 #1           70         80.00         72.00         80.00         76.00         100         78-80108 #1 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
59   300.00				7259.00				
60 300.00 2.70 9688.00 10708.00 11098.00 100 78-80H30 #5 61 300.00 2.70 9688.00 10708.00 10198.00 100 78-80H30 #6 62 300.00 9.16 9688.00 10708.00 10198.00 100 78-80H30 #6 63 300.00 42.39 9688.00 10708.00 10198.00 100 78-80H30 #6 64 300.00 42.39 72.00 80.00 76.00 100 78-80H30 #8 65 80.00 2.70 72.00 80.00 76.00 100 78-80H30 #9 66 80.00 9.16 72.00 80.00 76.00 100 78-80H30 #8 67 80.00 21.73 72.00 80.00 76.00 100 78-80H38 #3 68 80.00 42.39 72.00 80.00 76.00 100 78-80H38 #3 68 80.00 42.39 72.00 80.00 76.00 100 78-80H38 #5 70 80.00 2.70 144.00 160.00 152.00 100 78-80H38 #5 71 80.00 9.16 144.00 160.00 152.00 100 78-80H38 #5 72 80.00 21.73 144.00 160.00 152.00 100 78-80H88 #8 73 80.00 42.39 72.00 80.00 76.00 100 78-80H88 #8 74 80.00 21.73 144.00 160.00 152.00 100 78-80H88 #8 75 80.00 2.70 290.00 320.00 305.00 100 78-80H88 #1 76 80.00 2.70 290.00 320.00 305.00 100 78-80H88 #1 77 80.00 21.73 290.00 320.00 305.00 100 78-80H88 #1 78 80.00 21.73 290.00 320.00 305.00 100 78-80H88 #1 79 80.00 21.73 72.00 80.00 76.00 100 78-80H88 #1 78 80.00 21.73 72.00 80.00 76.00 100 78-80H88 #1 78 80.00 21.73 72.00 80.00 76.00 100 78-80H88 #1 78 80.00 21.73 72.00 80.00 76.00 100 78-80H88 #1 78 80.00 21.73 72.00 80.00 76.00 100 78-80H88 #1 78 80.00 21.73 72.00 80.00 76.00 100 78-80H88 #1 78 80.00 21.73 72.00 80.00 76.00 100 78-80H88 #1 78 80.00 73.27 72.00 80.00 76.00 100 78-80H88 #1 78 80.00 73.27 72.00 80.00 76.00 100 78-80H8 #1 78 80.00 73.27 72.00 80.00 76.00 100 78-80H8 #1 78 80.00 73.27 72.00 80.00 76.00 100 78-80H8 #1 78 80.00 73.27 72.00 80.00 76.00 100 78-80H8 #1 78 80.00 73.27 72.00 80.00 76.00 100 78-80H8 #1 78 80.00 73.27 72.00 80.00 76.00 100 78-80H8 #1 78 80.00 73.27 72.00 80.00 76.00 100 78-80H8 #1 78 80.00 73.27 72.00 80.00 76.00 100 78-80H8 #1 78 80.00 78.27 144.00 160.00 152.00 100 78-80H10 #1 78 100.00 2.70 72.00 80.00 76.00 100 78-80H10 #1 78 100.00 78.27 144.00 160.00 152.00 100 78-80H10 #1 78 100.00 78.27 144.00 160.00 152.00 100 78-80H10 #1 78 100.00 78.27 144.00 160.00 152.00 100 78-80H10 #1 78 100.00 78.27 144.00 160.						_		
61 300.00 2.70 9688.00 10708.00 10198.00 100 78-80H30 #6 62 300.00 9.16 9688.00 10708.00 10198.00 100 78-80H30 #8 63 300.00 21.73 9688.00 10708.00 10198.00 24 78-80H30 #8 64 300.00 42.39 9688.00 10708.00 10198.00 24 78-80H30 #8 65 80.00 2.70 72.00 80.00 76.00 100 78-80H30 #8 68 80.00 21.73 72.00 80.00 76.00 100 78-80H30 #2 68 80.00 21.73 72.00 80.00 76.00 100 78-80H30 #2 69 80.00 73.27 72.00 80.00 76.00 100 78-80H30 #4 69 80.00 73.27 72.00 80.00 76.00 100 78-80H30 #4 70 80.00 21.73 144.00 160.00 152.00 100 78-80H30 #5 71 80.00 21.73 144.00 160.00 152.00 100 78-80H30 #7 72 80.00 21.73 144.00 160.00 152.00 100 78-80H30 #7 74 80.00 21.73 290.00 320.00 305.00 100 78-80H30 #1 75 80.00 2.70 290.00 320.00 305.00 100 78-80H30 #1 76 80.00 9.16 290.00 320.00 305.00 100 78-80H30 #1 77 80.00 21.73 290.00 320.00 305.00 100 78-80H30 #1 78 80.00 9.16 72.00 80.00 76.00 100 78-80H30 #1 78 80.00 9.16 72.00 80.00 76.00 100 78-80H30 #1 78 80.00 9.16 72.00 80.00 78.00 100 78-80H30 #1 79 80.00 21.73 290.00 320.00 305.00 100 78-80H30 #1 79 80.00 21.73 290.00 320.00 305.00 100 78-80H30 #1 78 80.00 9.16 72.00 80.00 76.00 100 78-80H30 #1 78 80.00 9.16 72.00 80.00 76.00 100 78-80H30 #1 78 80.00 9.16 72.00 80.00 76.00 100 78-80H30 #1 78 80.00 9.16 72.00 80.00 76.00 100 78-80H30 #1 78 80.00 9.16 72.00 80.00 76.00 100 78-80H30 #1 79 80.00 73.27 72.00 80.00 76.00 100 78-80H30 #1 79 80.00 73.27 72.00 80.00 76.00 100 78-80H30 #1 79 80.00 73.27 72.00 80.00 76.00 100 78-80H30 #1 79 80.00 73.27 72.00 80.00 76.00 100 78-80H10 #1 78 100.00 21.73 72.00 80.00 76.00 100 78-80H10 #1 78 100.00 21.73 72.00 80.00 76.00 100 78-80H10 #1 78 100.00 21.73 72.00 80.00 76.00 100 78-80H10 #1 78 100.00 21.73 72.00 80.00 76.00 100 78-80H10 #1 78 100.00 78.72 72.00 80.00 76.00 100 78-80H10 #1 78 100.00 78.72 72.00 80.00 76.00 100 78-80H10 #1 78 100.00 78.72 72.00 80.00 76.00 100 78-80H10 #1 78 100.00 78.72 72.00 80.00 76.00 100 78-80H10 #1 78 78 78 78 78 78 78 78 78 78 78 78 78 7								
62 300.00 9.16 9688.00 10708.00 10198.00 100 78-80H30 #7 63 300.00 21.73 9688.00 10708.00 10198.00 100 78-80H30 #8 64 300.00 22.70 72.00 80.00 76.00 100 78-80H30 #9 65 80.00 9.16 72.00 80.00 76.00 100 78-80H30 #9 66 80.00 9.16 72.00 80.00 76.00 100 78-80H30 #9 67 80.00 21.73 72.00 80.00 76.00 100 78-80H38 #3 68 80.00 42.39 72.00 80.00 76.00 100 78-80H38 #3 69 80.00 73.27 72.00 80.00 76.00 100 78-80H38 #3 69 80.00 73.27 72.00 80.00 76.00 100 78-80H38 #4 69 80.00 73.27 72.00 80.00 76.00 100 78-80H38 #4 69 80.00 73.27 72.00 80.00 76.00 100 78-80H38 #4 69 80.00 73.27 144.00 160.00 152.00 100 78-80H38 #4 69 80.00 73.27 144.00 160.00 152.00 100 78-80H38 #6 72 80.00 2.70 144.00 160.00 152.00 100 78-80H38 #6 73 80.00 42.39 144.00 160.00 152.00 100 78-80H38 #8 74 80.00 73.27 144.00 160.00 152.00 100 78-80H38 #8 75 80.00 2.70 290.00 320.00 305.00 100 78-80H38 #1 76 80.00 2.70 290.00 320.00 305.00 100 78-80H38 #1 77 80.00 21.73 290.00 320.00 305.00 100 78-80H38 #1 78 80.00 21.73 290.00 320.00 305.00 100 78-80H38 #1 78 80.00 21.73 290.00 320.00 305.00 100 78-80H38 #1 78 80.00 21.73 290.00 320.00 305.00 100 78-80H38 #1 78 80.00 78.27 290.00 320.00 305.00 100 78-80H38 #1 78 80.00 78.27 290.00 320.00 305.00 100 78-80H38 #1 78 80.00 78.27 290.00 320.00 305.00 100 78-80H38 #1 78 80.00 78.27 290.00 320.00 305.00 100 78-80H38 #1 78 80.00 78.27 290.00 80.00 76.00 100 78-80H18 #1 78 80.00 78.27 290.00 80.00 76.00 100 78-80H18 #1 78 80.00 78.27 290.00 80.00 76.00 100 78-80H18 #1 79 80.00 78.27 290.00 80.00 76.00 100 78-80H18 #1 79 80.00 78.27 290.00 80.00 76.00 100 78-80H18 #1 79 80.00 78.27 290.00 80.00 76.00 100 78-80H18 #1 79 80.00 78.27 290.00 80.00 76.00 100 78-80H18 #1 79 80.00 78.27 290.00 80.00 76.00 100 78-80H18 #1 79 80.00 78.27 290.00 80.00 76.00 100 78-80H18 #1 79 80.00 78.28 200.00 80.00 76.00 100 78-80H18 #1 79 80.00 78.28 200.00 80.00 76.00 100 78-80H18 #1 70 70.00 21.73 290.00 80.00 76.00 100 78-80H18 #1 70 70.00 21.73 290.00 80.00 76.00 100 78-80H18 #1 70 70.00 21.73 290.00 80.00 76.00 100 78-80H18 #1 70 70.00 21.73								
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88         100.00         42.39         144.00         160.00         152.00         100         78-80L10         #9           89         100.00         73.27         144.00         160.00         152.00         100         78-80L10         #10           90         100.00         2.70         290.00         320.00         305.00         100         78-80L10         #11           91         100.00         21.73         290.00         320.00         305.00         100         78-80L10         #13           93         100.00         42.39         290.00         320.00         305.00         100         78-80L10         #13           94         100.00         73.27         290.00         320.00         305.00         100         78-80L15         #1           95         150.00         2.70         72.00         80.00         76.00         100         78-80L15         #2           97         150.00         21.73         72.00         80.00         76.00         100         78-80L15         #2           97         150.00         2.70         72.00         80.00         76.00         100         78-80L15         #3           98 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
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94         100.00         73.27         290.00         320.00         305.00         100         78-80L10         #15           95         150.00         2.70         72.00         80.00         76.00         100         78-80L15         #1           96         150.00         9.16         72.00         80.00         76.00         100         78-80L15         #2           97         150.00         21.73         72.00         80.00         76.00         100         78-80L15         #3           98         150.00         42.39         72.00         80.00         76.00         100         78-80L15         #4           99         150.00         2.70         144.00         160.00         152.00         100         78-80L15         #5           100         150.00         2.70         144.00         160.00         152.00         100         78-80L15         #7           102         150.00         21.73         144.00         160.00         152.00         100         78-80L15         #8           103         150.00         21.73         144.00         160.00         152.00         100         78-80L15         #1           105								
96 150.00 9.16 72.00 80.00 76.00 100 78-80L15 #2 97 150.00 21.73 72.00 80.00 76.00 100 78-80L15 #3 98 150.00 42.39 72.00 80.00 76.00 100 78-80L15 #4 99 150.00 73.27 72.00 80.00 76.00 100 78-80L15 #5 100 150.00 2.70 144.00 160.00 152.00 100 78-80L15 #6 101 150.00 9.16 144.00 160.00 152.00 100 78-80L15 #8 103 150.00 42.39 144.00 160.00 152.00 100 78-80L15 #9 104 150.00 73.27 144.00 160.00 152.00 100 78-80L15 #9 105 150.00 2.70 290.00 320.00 305.00 100 78-80L15 #10 106 150.00 9.16 290.00 320.00 305.00 100 78-80L15 #11 106 150.00 9.16 290.00 320.00 305.00 100 78-80L15 #12 107 150.00 21.73 290.00 320.00 305.00 100 78-80L15 #12 107 150.00 21.73 290.00 320.00 305.00 100 78-80L15 #13 108 150.00 42.39 290.00 320.00 305.00 100 78-80L15 #14 109 150.00 73.27 290.00 320.00 305.00 100 78-80L15 #14 109 150.00 73.27 290.00 320.00 305.00 100 78-80L15 #15 110 200.00 2.70 72.00 80.00 76.00 100 78-80L20 #1 111 200.00 9.16 72.00 80.00 76.00 100 78-80L20 #1 112 200.00 21.73 72.00 80.00 76.00 100 78-80L20 #2 112 200.00 21.73 72.00 80.00 76.00 100 78-80L20 #3 113 200.00 42.39 72.00 80.00 76.00 100 78-80L20 #3 114 200.00 9.16 144.00 160.00 152.00 100 78-80L20 #5 115 200.00 2.70 144.00 160.00 152.00 100 78-80L20 #7 117 200.00 9.16 144.00 160.00 152.00 100 78-80L20 #7 117 200.00 21.73 144.00 160.00 152.00 100 78-80L20 #7 117 200.00 21.73 144.00 160.00 152.00 100 78-80L20 #7 117 200.00 21.73 144.00 160.00 152.00 100 78-80L20 #7 119 200.00 73.27 144.00 160.00 152.00 100 78-80L20 #7 119 200.00 73.27 144.00 160.00 152.00 100 78-80L20 #7 119 200.00 73.27 144.00 160.00 152.00 100 78-80L20 #7								78-80L10 #15
97 150.00 21.73 72.00 80.00 76.00 100 78-80L15 #3 98 150.00 42.39 72.00 80.00 76.00 100 78-80L15 #4 99 150.00 73.27 72.00 80.00 76.00 100 78-80L15 #5 100 150.00 2.70 144.00 160.00 152.00 100 78-80L15 #6 101 150.00 9.16 144.00 160.00 152.00 100 78-80L15 #7 102 150.00 21.73 144.00 160.00 152.00 100 78-80L15 #8 103 150.00 42.39 144.00 160.00 152.00 100 78-80L15 #9 104 150.00 73.27 144.00 160.00 152.00 100 78-80L15 #10 105 150.00 2.70 290.00 320.00 305.00 100 78-80L15 #11 106 150.00 9.16 290.00 320.00 305.00 100 78-80L15 #12 107 150.00 21.73 290.00 320.00 305.00 100 78-80L15 #13 108 150.00 42.39 290.00 320.00 305.00 100 78-80L15 #13 108 150.00 42.39 290.00 320.00 305.00 100 78-80L15 #14 109 150.00 73.27 290.00 320.00 305.00 100 78-80L15 #15 110 200.00 9.16 72.00 80.00 76.00 100 78-80L20 #1 111 200.00 9.16 72.00 80.00 76.00 100 78-80L20 #2 112 200.00 21.73 72.00 80.00 76.00 100 78-80L20 #3 113 200.00 42.39 72.00 80.00 76.00 100 78-80L20 #3 114 200.00 73.27 72.00 80.00 76.00 100 78-80L20 #3 115 200.00 42.39 72.00 80.00 76.00 100 78-80L20 #3 116 200.00 9.16 144.00 160.00 152.00 100 78-80L20 #7 117 200.00 9.16 144.00 160.00 152.00 100 78-80L20 #7 117 200.00 21.73 144.00 160.00 152.00 100 78-80L20 #8 118 200.00 42.39 144.00 160.00 152.00 100 78-80L20 #8 118 200.00 73.27 144.00 160.00 152.00 100 78-80L20 #9 119 200.00 73.27 144.00 160.00 152.00 100 78-80L20 #9								
98 150.00 42.39 72.00 80.00 76.00 100 78-80L15 #4 99 150.00 73.27 72.00 80.00 76.00 100 78-80L15 #5 100 150.00 2.70 144.00 160.00 152.00 100 78-80L15 #6 101 150.00 9.16 144.00 160.00 152.00 100 78-80L15 #7 102 150.00 21.73 144.00 160.00 152.00 100 78-80L15 #8 103 150.00 42.39 144.00 160.00 152.00 100 78-80L15 #19 104 150.00 73.27 144.00 160.00 152.00 100 78-80L15 #10 105 150.00 2.70 290.00 320.00 305.00 100 78-80L15 #11 106 150.00 9.16 290.00 320.00 305.00 100 78-80L15 #12 107 150.00 21.73 290.00 320.00 305.00 100 78-80L15 #12 107 150.00 21.73 290.00 320.00 305.00 100 78-80L15 #13 108 150.00 42.39 290.00 320.00 305.00 100 78-80L15 #13 108 150.00 42.39 290.00 320.00 305.00 100 78-80L15 #14 109 150.00 73.27 290.00 320.00 305.00 100 78-80L15 #15 110 200.00 2.70 72.00 80.00 76.00 100 78-80L20 #1 111 200.00 9.16 72.00 80.00 76.00 100 78-80L20 #2 112 200.00 21.73 72.00 80.00 76.00 100 78-80L20 #2 113 200.00 42.39 72.00 80.00 76.00 100 78-80L20 #3 113 200.00 42.39 72.00 80.00 76.00 100 78-80L20 #3 114 200.00 73.27 72.00 80.00 76.00 100 78-80L20 #3 115 200.00 21.73 72.00 80.00 76.00 100 78-80L20 #3 116 200.00 9.16 144.00 160.00 152.00 100 78-80L20 #7 117 200.00 21.73 144.00 160.00 152.00 100 78-80L20 #8 118 200.00 42.39 144.00 160.00 152.00 100 78-80L20 #8 118 200.00 73.27 144.00 160.00 152.00 100 78-80L20 #8 118 200.00 73.27 144.00 160.00 152.00 100 78-80L20 #9 119 200.00 73.27 144.00 160.00 152.00 100 78-80L20 #9								
99 150.00 73.27 72.00 80.00 76.00 100 78-80L15 #5 100 150.00 2.70 144.00 160.00 152.00 100 78-80L15 #6 101 150.00 9.16 144.00 160.00 152.00 100 78-80L15 #7 102 150.00 21.73 144.00 160.00 152.00 100 78-80L15 #8 103 150.00 42.39 144.00 160.00 152.00 100 78-80L15 #10 105 150.00 2.70 290.00 320.00 305.00 100 78-80L15 #11 106 150.00 9.16 290.00 320.00 305.00 100 78-80L15 #11 107 150.00 21.73 290.00 320.00 305.00 100 78-80L15 #12 107 150.00 21.73 290.00 320.00 305.00 100 78-80L15 #13 108 150.00 42.39 290.00 320.00 305.00 100 78-80L15 #14 109 150.00 73.27 290.00 320.00 305.00 100 78-80L15 #14 109 150.00 73.27 290.00 320.00 305.00 100 78-80L15 #15 110 200.00 2.70 72.00 80.00 76.00 100 78-80L20 #1 111 200.00 9.16 72.00 80.00 76.00 100 78-80L20 #2 112 200.00 21.73 72.00 80.00 76.00 100 78-80L20 #2 113 200.00 42.39 72.00 80.00 76.00 100 78-80L20 #3 113 200.00 42.39 72.00 80.00 76.00 100 78-80L20 #3 114 200.00 73.27 72.00 80.00 76.00 100 78-80L20 #3 115 200.00 21.73 72.00 80.00 76.00 100 78-80L20 #3 116 200.00 9.16 144.00 160.00 152.00 100 78-80L20 #6 116 200.00 9.16 144.00 160.00 152.00 100 78-80L20 #8 118 200.00 42.39 144.00 160.00 152.00 100 78-80L20 #8 118 200.00 42.39 144.00 160.00 152.00 100 78-80L20 #8 119 200.00 73.27 144.00 160.00 152.00 100 78-80L20 #8								
101         150.00         9.16         144.00         160.00         152.00         100         78-80L15 #7           102         150.00         21.73         144.00         160.00         152.00         100         78-80L15 #8           103         150.00         42.39         144.00         160.00         152.00         100         78-80L15 #9           104         150.00         73.27         144.00         160.00         152.00         100         78-80L15 #10           105         150.00         2.70         290.00         320.00         305.00         100         78-80L15 #11           106         150.00         9.16         290.00         320.00         305.00         100         78-80L15 #12           107         150.00         21.73         290.00         320.00         305.00         100         78-80L15 #12           107         150.00         42.39         290.00         320.00         305.00         100         78-80L15 #12           107         150.00         73.27         290.00         320.00         305.00         100         78-80L15 #13           108         150.00         73.27         290.00         320.00         305.00 <td< td=""><td></td><td></td><td></td><td></td><td></td><td>76.00</td><td></td><td></td></td<>						76.00		
102         150.00         21.73         144.00         160.00         152.00         100         78-80L15         #8           103         150.00         42.39         144.00         160.00         152.00         100         78-80L15         #9           104         150.00         73.27         144.00         160.00         152.00         100         78-80L15         #10           105         150.00         2.70         290.00         320.00         305.00         100         78-80L15         #11           106         150.00         9.16         290.00         320.00         305.00         100         78-80L15         #12           107         150.00         21.73         290.00         320.00         305.00         100         78-80L15         #12           107         150.00         42.39         290.00         320.00         305.00         100         78-80L15         #14           109         150.00         73.27         290.00         320.00         305.00         100         78-80L15         #14           109         150.00         73.27         290.00         320.00         305.00         100         78-80L15         #15      <					160.00			
103         150.00         42.39         144.00         160.00         152.00         100         78-80L15 #9           104         150.00         73.27         144.00         160.00         152.00         100         78-80L15 #10           105         150.00         2.70         290.00         320.00         305.00         100         78-80L15 #11           106         150.00         9.16         290.00         320.00         305.00         100         78-80L15 #12           107         150.00         21.73         290.00         320.00         305.00         100         78-80L15 #13           108         150.00         42.39         290.00         320.00         305.00         100         78-80L15 #13           108         150.00         73.27         290.00         320.00         305.00         100         78-80L15 #13           108         150.00         73.27         290.00         320.00         305.00         100         78-80L15 #15           110         200.00         2.70         72.00         80.00         76.00         100         78-80L20 #1           111         200.00         21.73         72.00         80.00         76.00         100<								
104         150.00         73.27         144.00         160.00         152.00         100         78-80L15         #10           105         150.00         2.70         290.00         320.00         305.00         100         78-80L15         #11           106         150.00         9.16         290.00         320.00         305.00         100         78-80L15         #12           107         150.00         21.73         290.00         320.00         305.00         100         78-80L15         #13           108         150.00         42.39         290.00         320.00         305.00         100         78-80L15         #14           109         150.00         73.27         290.00         320.00         305.00         100         78-80L15         #15           110         200.00         2.70         72.00         80.00         76.00         100         78-80L20         #1           111         200.00         21.73         72.00         80.00         76.00         100         78-80L20         #2           112         200.00         21.73         72.00         80.00         76.00         100         78-80L20         #3								
106         150.00         9.16         290.00         320.00         305.00         100         78-80L15         #12           107         150.00         21.73         290.00         320.00         305.00         100         78-80L15         #13           108         150.00         42.39         290.00         320.00         305.00         100         78-80L15         #14           109         150.00         73.27         290.00         320.00         305.00         100         78-80L15         #15           110         200.00         2.70         72.00         80.00         76.00         100         78-80L20         #1           111         200.00         9.16         72.00         80.00         76.00         100         78-80L20         #2           112         200.00         21.73         72.00         80.00         76.00         100         78-80L20         #3           113         200.00         42.39         72.00         80.00         76.00         100         78-80L20         #3           115         200.00         73.27         72.00         80.00         76.00         100         78-80L20         #5           115	104	150.00	73.27	144.00				
107         150.00         21.73         290.00         320.00         305.00         100         78-80L15         #13           108         150.00         42.39         290.00         320.00         305.00         100         78-80L15         #14           109         150.00         73.27         290.00         320.00         305.00         100         78-80L15         #15           110         200.00         2.70         72.00         80.00         76.00         100         78-80L20         #1           111         200.00         9.16         72.00         80.00         76.00         100         78-80L20         #2           112         200.00         21.73         72.00         80.00         76.00         100         78-80L20         #3           113         200.00         42.39         72.00         80.00         76.00         100         78-80L20         #3           115         200.00         73.27         72.00         80.00         76.00         100         78-80L20         #5           115         200.00         73.27         72.00         80.00         76.00         100         78-80L20         #5           115 <td></td> <td></td> <td>2.70</td> <td></td> <td></td> <td></td> <td></td> <td></td>			2.70					
108         150.00         42.39         290.00         320.00         305.00         100         78-80L15         #14           109         150.00         73.27         290.00         320.00         305.00         100         78-80L15         #15           110         200.00         2.70         72.00         80.00         76.00         100         78-80L20         #1           111         200.00         9.16         72.00         80.00         76.00         100         78-80L20         #2           112         200.00         21.73         72.00         80.00         76.00         100         78-80L20         #3           113         200.00         42.39         72.00         80.00         76.00         100         78-80L20         #3           114         200.00         73.27         72.00         80.00         76.00         100         78-80L20         #5           115         200.00         2.70         144.00         160.00         152.00         100         78-80L20         #5           116         200.00         9.16         144.00         160.00         152.00         100         78-80L20         #8           118 <td></td> <td></td> <td>9.16 21 73</td> <td></td> <td></td> <td></td> <td></td> <td></td>			9.16 21 73					
109         150.00         73.27         290.00         320.00         305.00         100         78-80L15         #15           110         200.00         2.70         72.00         80.00         76.00         100         78-80L20         #1           111         200.00         9.16         72.00         80.00         76.00         100         78-80L20         #2           112         200.00         21.73         72.00         80.00         76.00         100         78-80L20         #3           113         200.00         42.39         72.00         80.00         76.00         100         78-80L20         #4           114         200.00         73.27         72.00         80.00         76.00         100         78-80L20         #5           115         200.00         2.70         144.00         160.00         152.00         100         78-80L20         #6           116         200.00         9.16         144.00         160.00         152.00         100         78-80L20         #7           117         200.00         21.73         144.00         160.00         152.00         100         78-80L20         #8           118 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
110         200.00         2.70         72.00         80.00         76.00         100         78-80L20 #1           111         200.00         9.16         72.00         80.00         76.00         100         78-80L20 #2           112         200.00         21.73         72.00         80.00         76.00         100         78-80L20 #3           113         200.00         42.39         72.00         80.00         76.00         100         78-80L20 #4           114         200.00         73.27         72.00         80.00         76.00         100         78-80L20 #5           115         200.00         2.70         144.00         160.00         152.00         100         78-80L20 #5           116         200.00         9.16         144.00         160.00         152.00         100         78-80L20 #7           117         200.00         21.73         144.00         160.00         152.00         100         78-80L20 #8           118         200.00         42.39         144.00         160.00         152.00         100         78-80L20 #9           119         200.00         73.27         144.00         160.00         152.00         100	109							
112         200.00         21.73         72.00         80.00         76.00         100         78-80L20 #3           113         200.00         42.39         72.00         80.00         76.00         100         78-80L20 #4           114         200.00         73.27         72.00         80.00         76.00         100         78-80L20 #5           115         200.00         2.70         144.00         160.00         152.00         100         78-80L20 #6           116         200.00         9.16         144.00         160.00         152.00         100         78-80L20 #7           117         200.00         21.73         144.00         160.00         152.00         100         78-80L20 #8           118         200.00         42.39         144.00         160.00         152.00         100         78-80L20 #9           119         200.00         73.27         144.00         160.00         152.00         100         78-80L20 #9	110		2.70	72.00	80.00	76.00	100	78-80L20 #1
113     200.00     42.39     72.00     80.00     76.00     100     78-80L20     #4       114     200.00     73.27     72.00     80.00     76.00     100     78-80L20     #5       115     200.00     2.70     144.00     160.00     152.00     100     78-80L20     #6       116     200.00     9.16     144.00     160.00     152.00     100     78-80L20     #7       117     200.00     21.73     144.00     160.00     152.00     100     78-80L20     #8       118     200.00     42.39     144.00     160.00     152.00     100     78-80L20     #9       119     200.00     73.27     144.00     160.00     152.00     100     78-80L20     #9       119     200.00     73.27     144.00     160.00     152.00     100     78-80L20     #10			9.16					
114     200.00     73.27     72.00     80.00     76.00     100     78-80L20     #5       115     200.00     2.70     144.00     160.00     152.00     100     78-80L20     #6       116     200.00     9.16     144.00     160.00     152.00     100     78-80L20     #7       117     200.00     21.73     144.00     160.00     152.00     100     78-80L20     #8       118     200.00     42.39     144.00     160.00     152.00     100     78-80L20     #9       119     200.00     73.27     144.00     160.00     152.00     100     78-80L20     #10								
115     200.00     2.70     144.00     160.00     152.00     100     78-80L20 #6       116     200.00     9.16     144.00     160.00     152.00     100     78-80L20 #7       117     200.00     21.73     144.00     160.00     152.00     100     78-80L20 #8       118     200.00     42.39     144.00     160.00     152.00     100     78-80L20 #9       119     200.00     73.27     144.00     160.00     152.00     100     78-80L20 #10								
116     200.00     9.16     144.00     160.00     152.00     100     78-80L20 #7       117     200.00     21.73     144.00     160.00     152.00     100     78-80L20 #8       118     200.00     42.39     144.00     160.00     152.00     100     78-80L20 #9       119     200.00     73.27     144.00     160.00     152.00     100     78-80L20 #10	115	200.00	2.70	144.00				
118 200.00 42.39 144.00 160.00 152.00 100 78-80L20 #9 119 200.00 73.27 144.00 160.00 152.00 100 78-80L20 #10	116			144.00	160.00	152.00	100	78-80L20 #7
119 200.00 73.27 144.00 160.00 152.00 100 78-80L20 #10								
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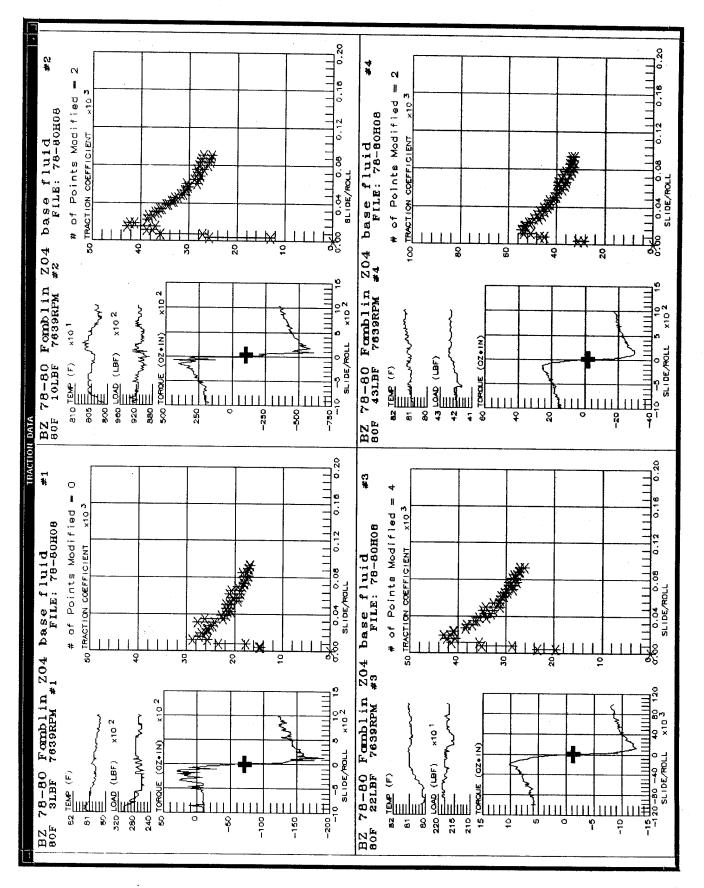
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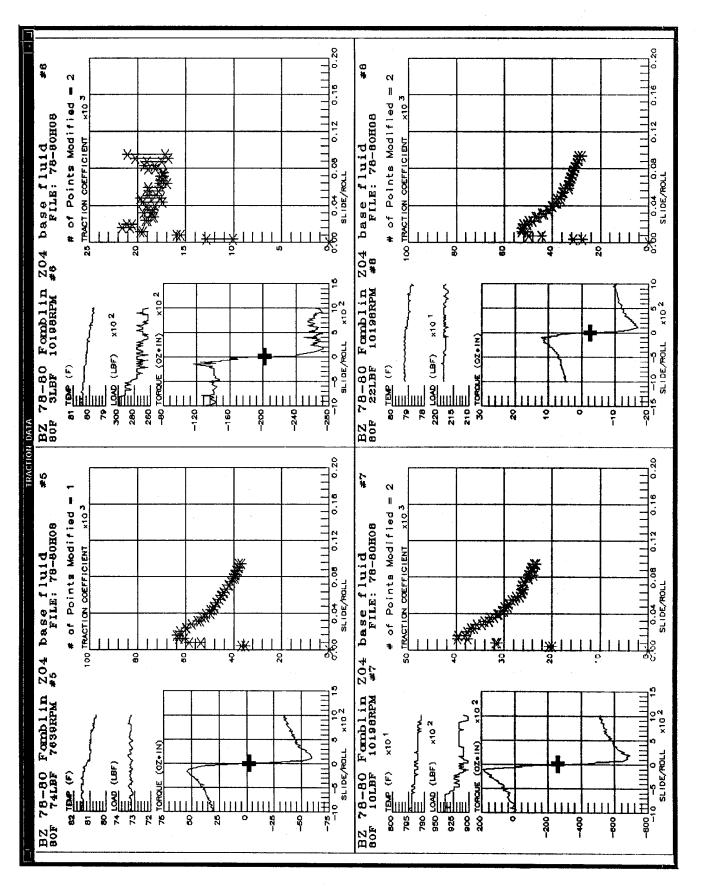
	Temp F	Load lbf	Rpm1	Rpm2	RollRpm	Points	Dataset/Test #
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122	200.00	21.73	290.00	320.00	305.00	100	78-80L20 #13
123 124	200.00 200.00	42.39 73.27	290.00 290.00	320.00 320.00	305.00 305.00	100 100	78-80L20 #14 78-80L20 #15
125	250.00	2.70	72.00	80.00	76.00	100	78-80L20 #15 78-80L25 #1
126	250.00	9.16	72.00	80.00	76.00	100	78-80L25 #2
127	250.00	21.73	72.00	80.00	76.00	100	78-80L25 #3
128	250.00	42.39	72.00	80.00	76.00	100	78-80L25 #4
129 130	250.00 250.00	73.27 2.70	72.00 144.00	80.00 160.00	76.00 152.00	100 100	78-80L25 #5 78-80L25 #6
131	250.00	9.16	144.00	160.00	152.00	100	78-80L25 #7
132	250.00	21.73	144.00	1 <del>6</del> 0.00	152.00	100	78-80L25 #8
133	250.00	42.39	144.00	160.00	152.00	100	78-80L25 #9
134 135	250.00 250.00	73.27 2.70	144.00 290.00	160.00 320.00	152.00 305.00	100 100	78-80L25 #10 78-80L25 #11
136	250.00	9.16	290.00	320.00	305.00	100	78-80L25 #11
137	250.00	21.73	290.00	320.00	305.00	100	78-80L25 #13
138	250.00	42.39	290.00	320.00	305.00	100	78-80L25 #14
139 140	250.00 300.00	73.27 2.70	290.00 72.00	320.00 80.00	305.00 76.00	100 100	78-80L25 #15 78-80L30 #1
141	300.00	9.16	72.00	80.00	76.00	100	78-80L30 #1
142	300.00	21.73	72.00	80.00	76.00	100	78-80L30 #3
143	300.00	42.39	72.00	80.00	76.00	100	78-80L30 #4
144 145	300.00 300.00	73.27 2.70	72.00 144.00	80.00 160.00	76.00 152.00	100 100	78-80L30 #5 78-80L30 #6
146	300.00	9.16	144.00	160.00	152.00	100	78-80L30 #7
147	300.00	21.73	144.00	160.00	152.00	100	78-80L30 #8
148	300.00	42.39	144.00	160.00	152.00	100	78-80L30 #9
149 150	300.00 300.00	73.27 2.70	144.00 290.00	160.00 320.00	152.00 305.00	100 100	78-80L30 #10 78-80L30 #11
151	300.00	9.16	290.00	320.00	305.00	100	78-80L30 #11
152	300.00	21.73	290.00	320.00	305.00	100	78-80L30 #13
153	300.00	42.39	290.00	320.00	305.00	100	78-80L30 #14
154 155	300.00 80.00	73.27 2.70	290.00 1197.00	320.00 1323.00	305.00 1260.00	100 100	78-80L30 #15 78-80M08 #1
156	80.00	9.16	1197.00	1323.00	1260.00	100	78-80M08 #2
157	80.00	21.73	1197.00	1323.00	1260.00	100	78-80M08 #3
158	80.00	42.39 73.27	1197.00	1323.00	1260.00	100	78-80M08 #4
159 160	80.00 80.00	2.70	1197.00 2431.00	1323.00 2687.00	1260.00 2559.00	100 100	78-80M08 #5 78-80M08 #6
161	80.00	9.16	2431.00	2687.00	2559.00	100	78-80M08 #7
162	80.00	21.73	2431.00	2687.00	2559.00	100	78-80M08 #8
163	80.00	42.39	2431.00	2687.00	2559.00	100	78-80M08 #9 78-80M08 #10
164 165	80.00 80.00	73.27 2.70	2431.00 4826.00	2687.00 5334.00	2559.00 5080.00	100 100	78-80M08 #11
166	80.00	9.16	4826.00	5334 00	5080.00	100	78-80M08 #12
167	80.00	21.73	4826.00	5334.00	5080.00	100	78-80M08 #13
168 169	80.00 80.00	42.39 73.27	4826.00 4826.00	5334.00 5334.00	5080.00 5080.00	100 100	78-80M08 #14 78-80M08 #15
170	100.00	2.70	1197.00	1323.00	1260.00	100	78-80M10 #1
171	100.00	9.16 21.73	1197.00	1323.00	1260.00	100	78-80M10 #2
172	100.00	21.73	1197.00	1323.00	1260.00	100	78-80M10 #3
173 174	100.00	42.39 73.27	1197.00 1197.00	1323.00 1323.00	1260.00 1260.00	100 100	78-80M10 #4 78-80M10 #5
175	100.00	2.70	2431.00	2687.00	2559.00	100	78-80M10 #5
176	100.00	9.16	2431.00	2687.00	2559.00	100	78-80M10 #7
177	100.00	21.73	2431.00	2687.00	2559.00	100	78-80M10 #8
178 179	100.00 100.00	42.39 73.27	2431.00 2431.00	2687.00 2687.00	2559.00 2559.00	100 100	78-80M10 #9 78-80M10 #10
180	100.00	2.70	4826.00	5334.00	5080.00	100	78-80M10 #11
181	100.00	9.16	4826.00	5334.00	5080.00	100	78-80M10 #12
182 183	100.00 100.00	21.73 42.39	4826.00 4826.00	5334.00 5334.00	5080.00 5080.00	100	78-80M10 #13 78-80M10 #14
184	100.00	73.27	4826.00	5334.00	5080.00	100 100	78-80M10 #14 78-80M10 #15
185	150.00	2.70	1197.00	1323.00	1260.00	100	78-80M15 #1
186	150.00	9.16	1197.00	1323.00	1260.00	100	78-80M15 #2
187 188	150.00 150.00	21.73 42.39	1197.00 1197.00	1323.00 1323.00	1260.00 1260.00	100 100	78-80M15 #3 78-80M15 #4
189	150.00	73.27	1197.00	1323.00	1260.00	100	78-80M15 #4 78-80M15 #5
190	150.00	2.70	2431.00	2687.00	2559.00	100	78-80M15 #6

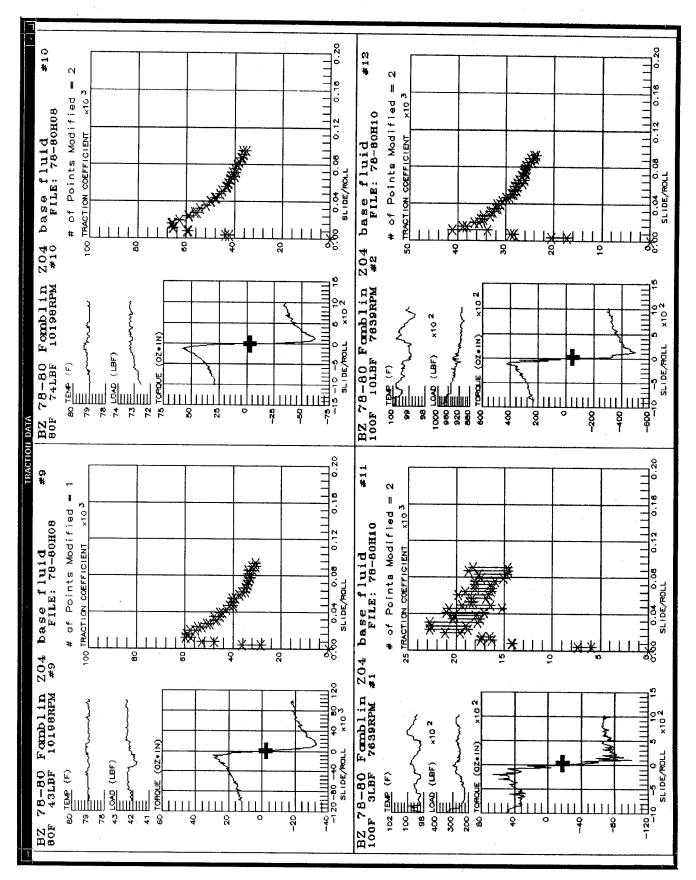
Data set: BZ 78-80 Fomblin Z04 base fluid ....continued

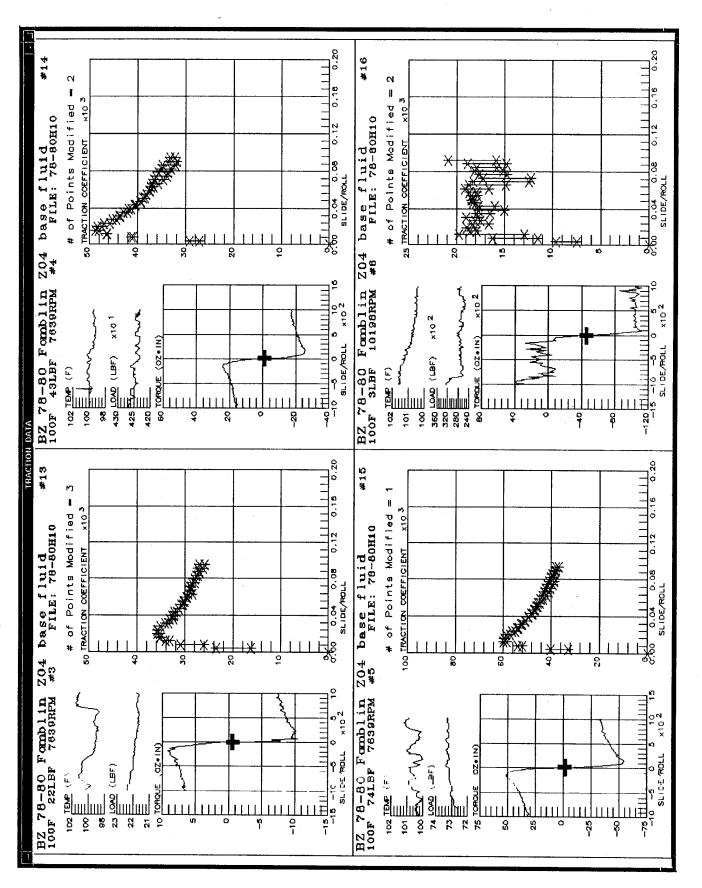
	Temp F	Load lbf	Rpm1	Rpm2	RollRpm	Points	Dataset/Test #
191	150.00	9.16	2431.00	2687.00	2559.00	100	78-80M15 #7
192	150.00	21.73	2431.00	2687.00	2559.00	100	78-80M15 #8
193	150.00	42.39	2431.00	2687.00	2559.00	100	78-80M15 #9
194	150.00	73.27	2431.00	2687.00	2559.00	100	78-80M15 #10
195	150.00	2.70	4826.00	5334.00	5080.00	100	78-80M15 #11
196	150.00	9.16	4826.00	5334.00	5080.00	100	78-80M15 #12
197	150.00	21.73	4826.00	5334.00	5080.00	100	78-80M15 #13
198	150.00	42.39	4826.00	5334.00	5080.00	100	78-80M15 #14
199	150.00	73.27	4826.00	5334.00	5080.00	100	78-80M15 #15
200	200.00	2.70	1197.00	1323.00	1260.00	100	78-80M20 #1
201	200.00	9.16	1197.00	1323.00	1260.00	100	78-80M20 #2
202	200.00	21.73	1197.00	1323.00	1260.00	100	78-80M20 #3
203	200.00	42.39	1197.00	1323.00	1260.00	100	78-80M20 #4
204	200.00	73.27	1197.00	1323.00	1260.00	100	78-80M20 #5
205	200.00	2.70	2431.00	2687.00	2559.00	100	78-80M20 #6
206	200.00	9.16	2431.00	2687.00	2559.00	100	78-80M20 #7
207 208	200.00	21.73	2431.00	2687.00	2559.00	100	78-80M20 #8
209	200.00	42.39	2431.00	2687.00	2559.00	100	78-80M20 #9
210	200.00	73.27	2431.00	2687.00	2559.00	100	78-80M20 #10
211	200.00 200.00	2.70 9.16	4826.00 4826.00	5334.00 5334.00	5080.00	100	78-80M20 #11
212	200.00	21.73	4826.00	5334.00	5080.00	100	78-80M20 #12
213	200.00	42.39	4826.00	5334.00	5080.00 5080.00	100 100	78-80M20 #13 78-80M20 #14
214	200.00	73.27	4826.00	5334.00	5080.00	100	78-80M20 #15
215	250.00	2.70	1197.00	1323.00	1260.00	100	78-80M25 #1
216	250.00	9.16	1197.00	1323.00	1260.00	100	78-80M25 #2
217	250.00	21.73	1197.00	1323.00	1260.00	100	78-80M25 #3
218	250.00	42.39	1197.00	1323.00	1260.00	100	78-80M25 #4
21 <del>9</del>	250.00	73.27	1197.00	1323.00	1260.00	100	78-80M25 #5
220	250.00	2.70	2431.00	2687.00	2559.00	100	78-80M25 #6
221	250.00	9.16	2431.00	2687.00	2559.00	100	78-80M25 #7
222	250.00	21.73	2431.00	2687.00	2559.00	100	78-80M25 #8
223	250.00	42.39	2431.00	2687.00	2559.00	100	78-80M25 #9
224 225	250.00	73.27	2431.00	2687.00	2559.00	100	78-80M25 #10
226	250.00 250.00	2.70 9.16	4826.00	5334.00	5080.00	100	78-80M25 #11
227	250.00	21.73	4826.00 4826.00	5334.00 5334.00	5080.00	100	78-80M25 #12
228	250.00	42.39	4826.00	5334.00	5080.00 5080.00	100 100	78-80M25 #13 78-80M25 #14
229	250.00	73.27	4826.00	5334.00	5080.00	100	78-80M25 #15
230	300.00	2.70	1197.00	1323.00	1260.00	100	78-80M30 #1
231	300.00	9.16	1197.00	1323.00	1260.00	100	78-80M30 #2
232	300.00	21.73	1197.00	1323.00	1260.00	100	78-80M30 #3
233	300.00	42.39	1197.00	1323.00	1260.00	100	78-80M30 #4
234	300.00	73.27	1197.00	1323.00	1260.00	100	78-80M30 #5
235	300.00	2.70	2431.00	2687.00	2559.00	100	78-80M30 #6
236	300.00	9.16	2431.00	2687.00	2559.00	100	78-80M30 #7
237	300.00	21.73	2431.00	2687.00	2559.00	100	78-80M30 #8
238	300.00	42.39	2431.00	2687.00	2559.00	100	78-80M30 #9
239 240	300.00	73.27	2431.00	2687.00	2559.00	100	78-80M30 #10
241	300.00 300.00	2.70 9.16	4826.00 4826.00	5334.00 5334.00	5080.00	100	78-80M30 #11
242	300.00	21.73	4826.00	5334.00	5080.00 5080.00	100 100	78-80M30 #12 78-80M30 #13
243	300.00	42.39	4826.00	5334.00	5080.00	100	78-80M30 #14
244	300.00	73.27	4826.00	5334.00	5080.00	100	78-80M30 #15
				2007100	5000.00	,,,,	. 5 50/150 #15

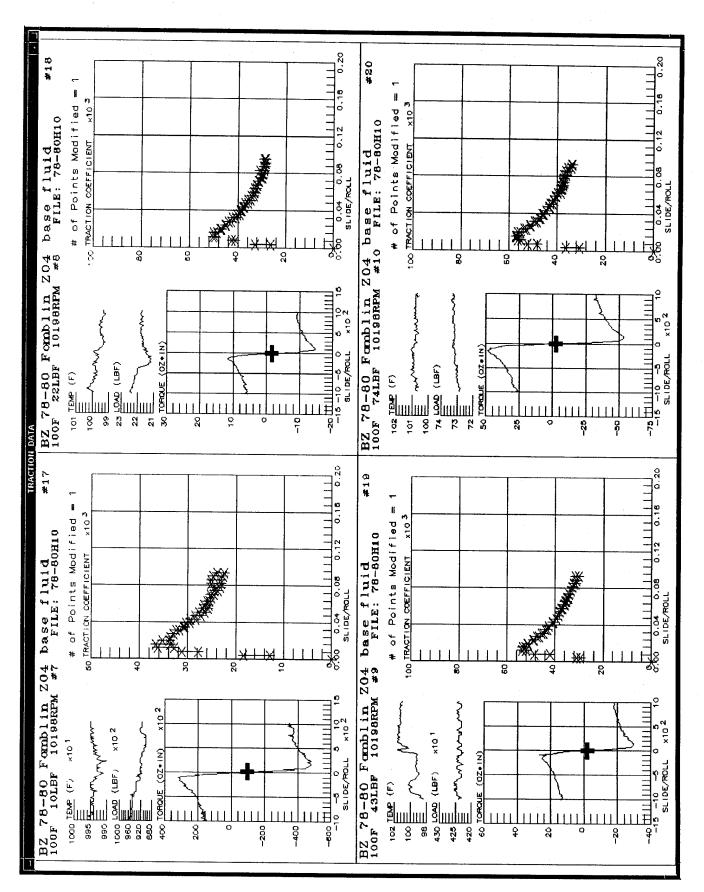
Filename	Temp	RollRpm	DataCurve #
bz1.dat	80.00	2559.00	161 162 163 164
bz2.dat	80.00	5080.00	166 167 168 169
bz3.dat	80.00	7639,00	2 3 4 5
bz4.dat	80.00	10198.00	7 8 9 10
bz5.dat	100.00	2559.00	176 177 178 179
bz6.dat	100.00	5080.00	181 182 183 184
bz7.dat	100.00	7639.00	12 13 14 15
bz8.dat	100.00	10198.00	17 18 19 20
bz9.dat	150.00	2559.00	191 192 193 194
bz10.dat	150.00	5080.00	196 197 198 199
bz11.dat	150.00	7639.00	22 23 24 25
bz12.dat	150.00	10198.00	27 28 29 30
bz13.dat	200.00	2559.00	206 207 208 209
bz14.dat	200.00	5080.00	211 212 213 214
bz15.dat	200.00	7639.00	32 33 34 35
bz16.dat	200.00	10198.00	37 38 39 40
bz17.dat	250.00	2559.00	221 222 223 224
bz18.dat	250.00	5080.00	226 227 228 229
bz19.dat	250.00	7639.00	42 43 44 45
bz20.dat	250.00	10198.00	52 53 54 55
bz21.dat	300.00	2559.00	236 237 238 239
bz22.dat	300.00	5080.00	241 242 243 244
bz23.dat	300.00	7639.00	57 58 59 60
bz24.dat	300.00	10198.00	62 63 64

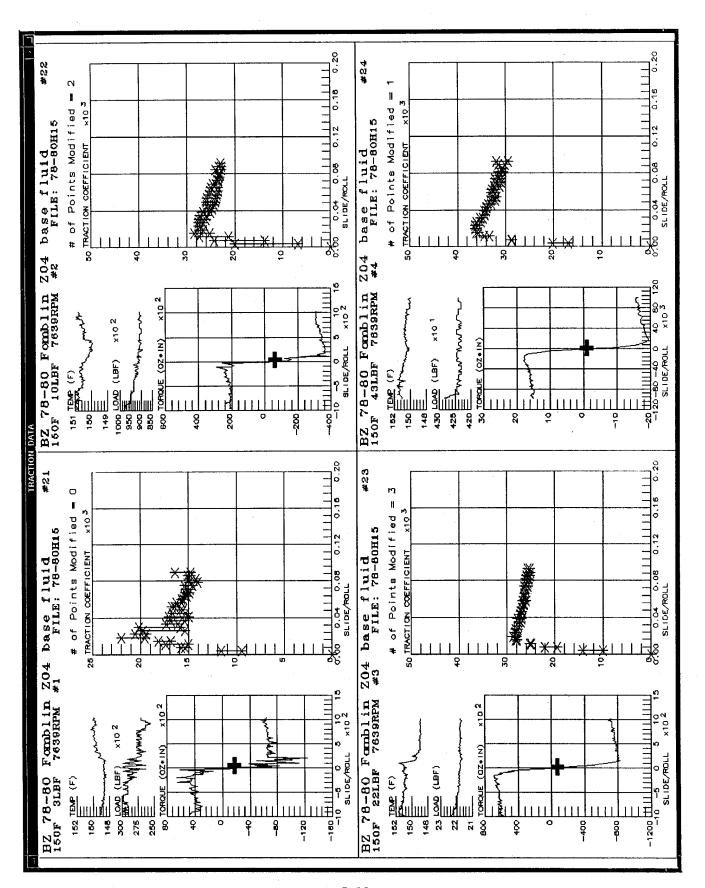


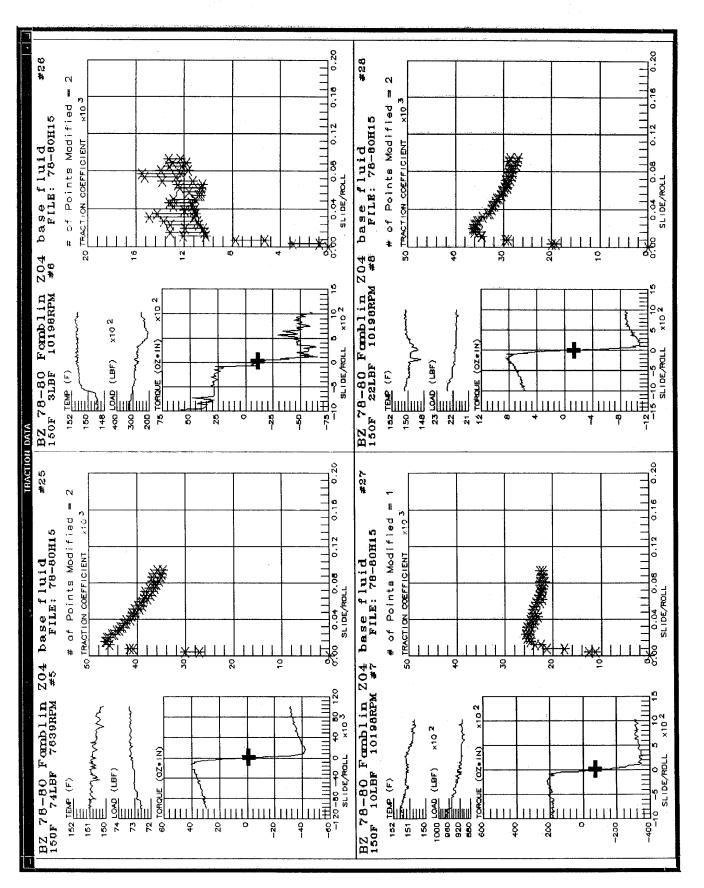


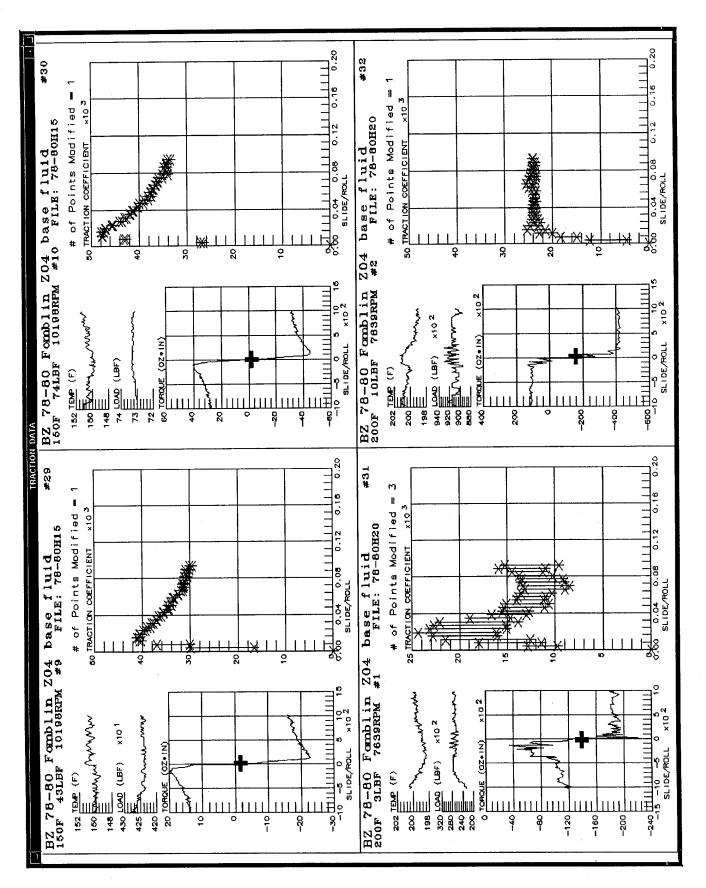


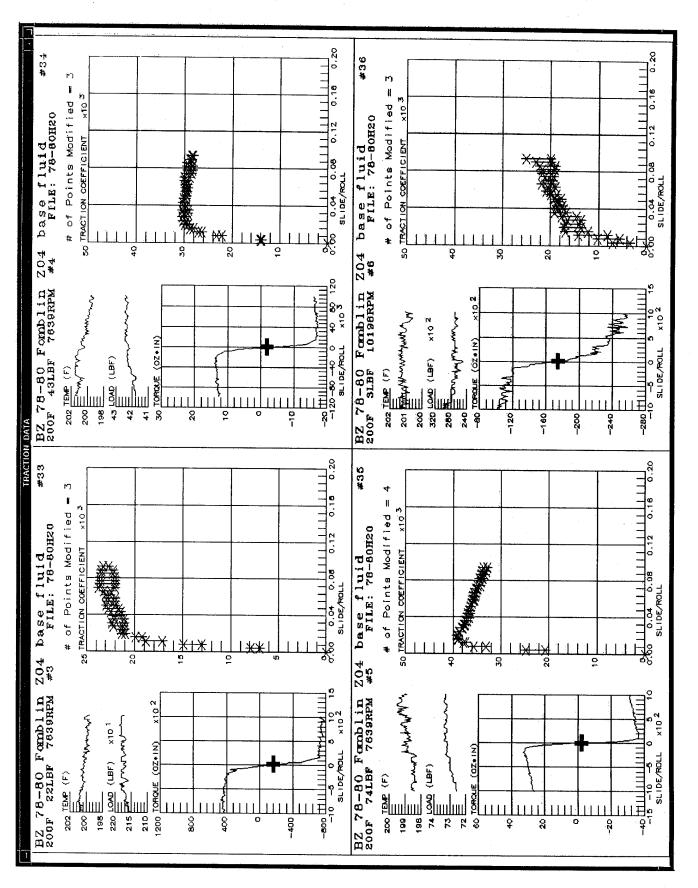


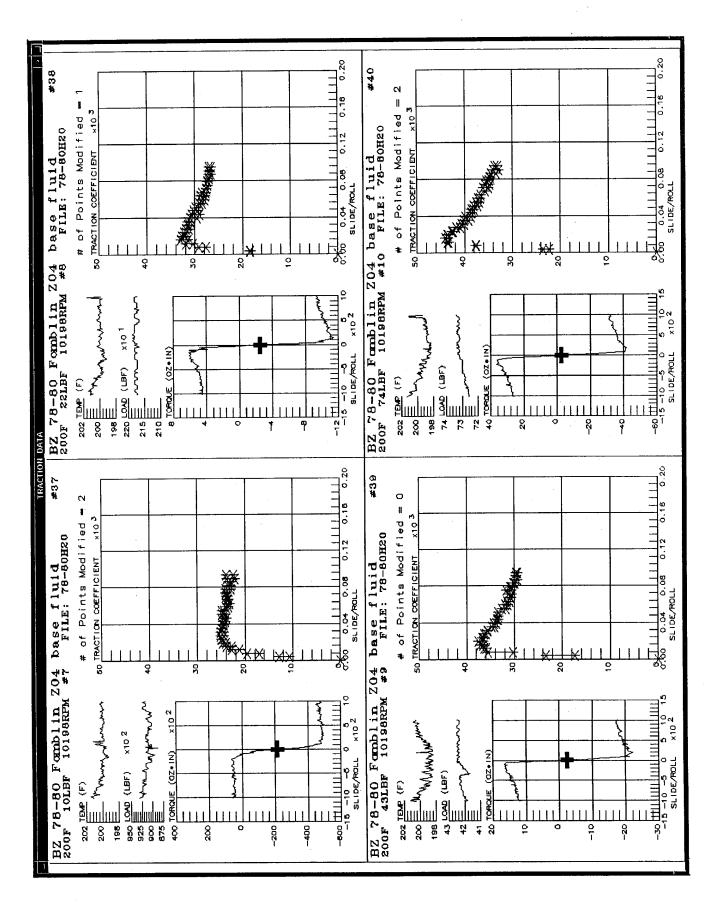


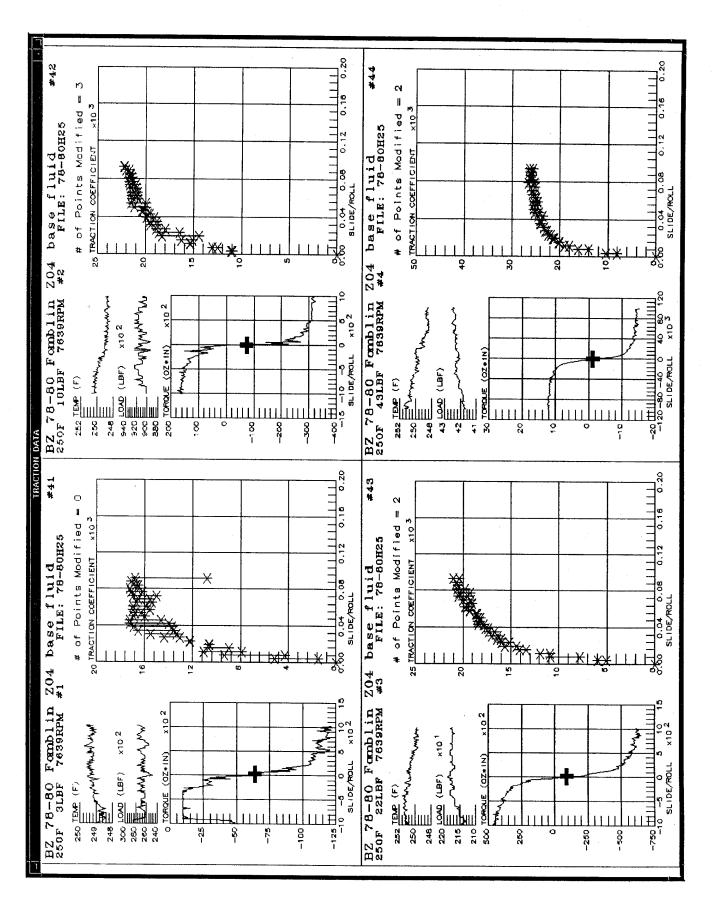


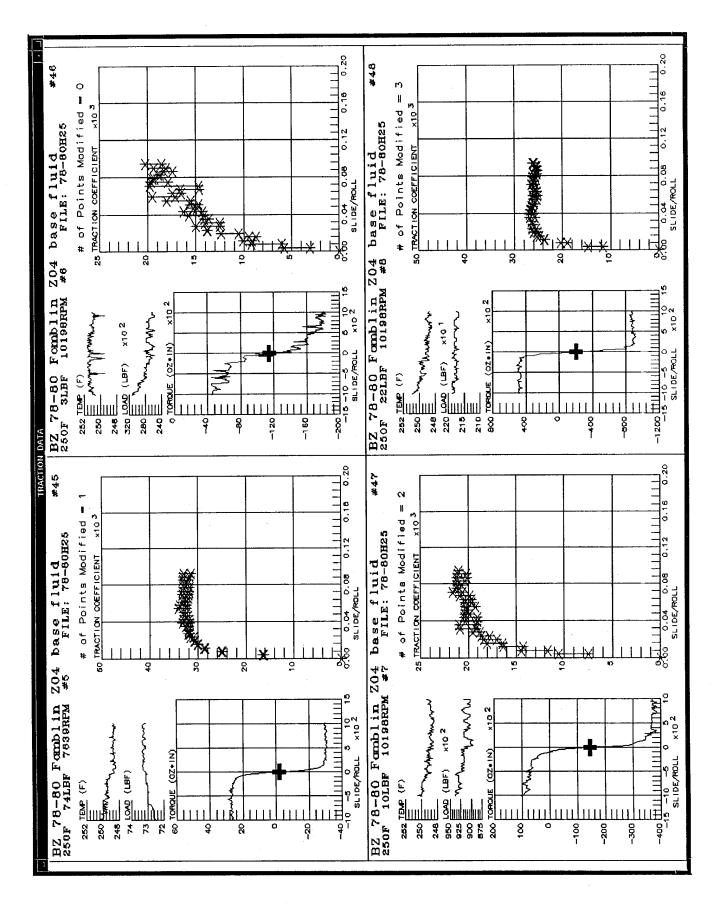


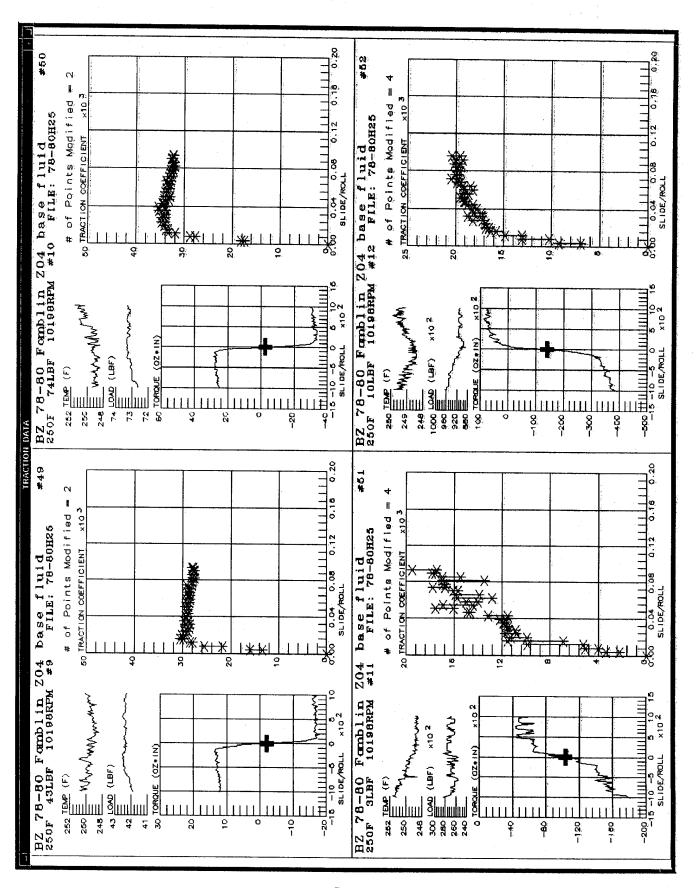


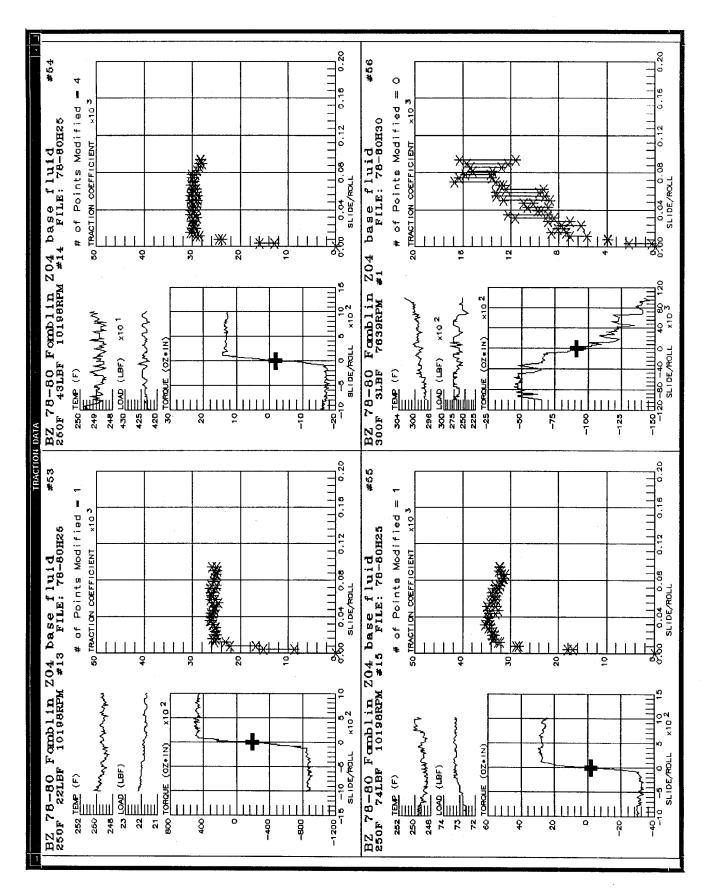


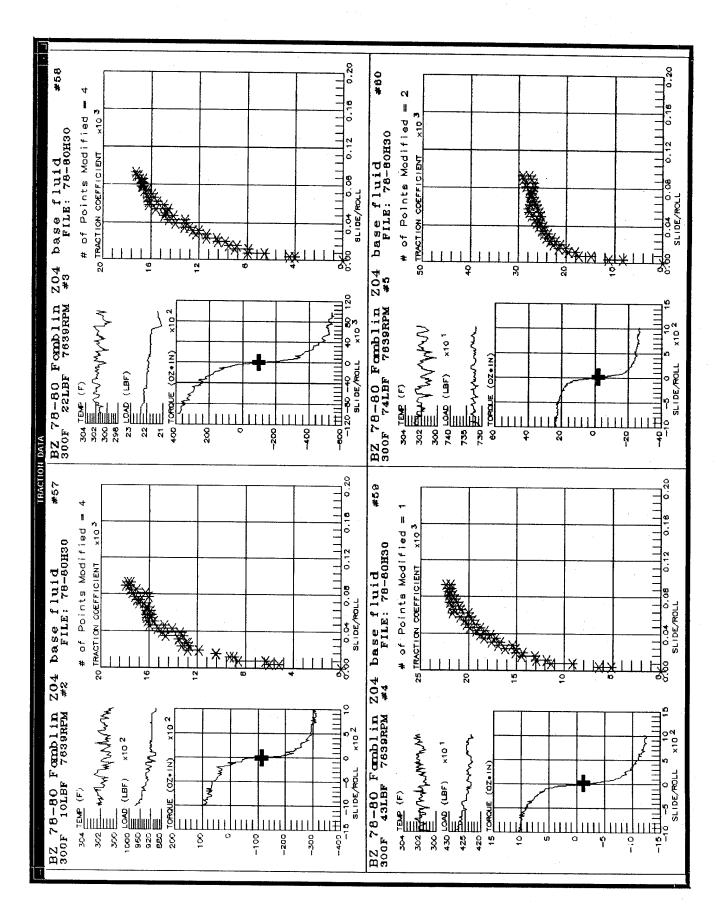


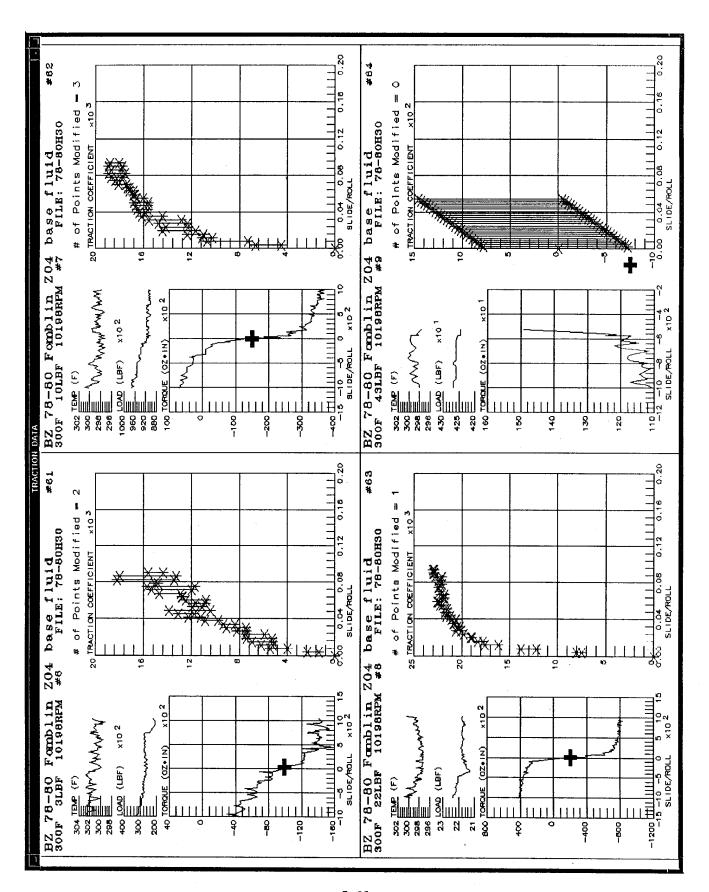


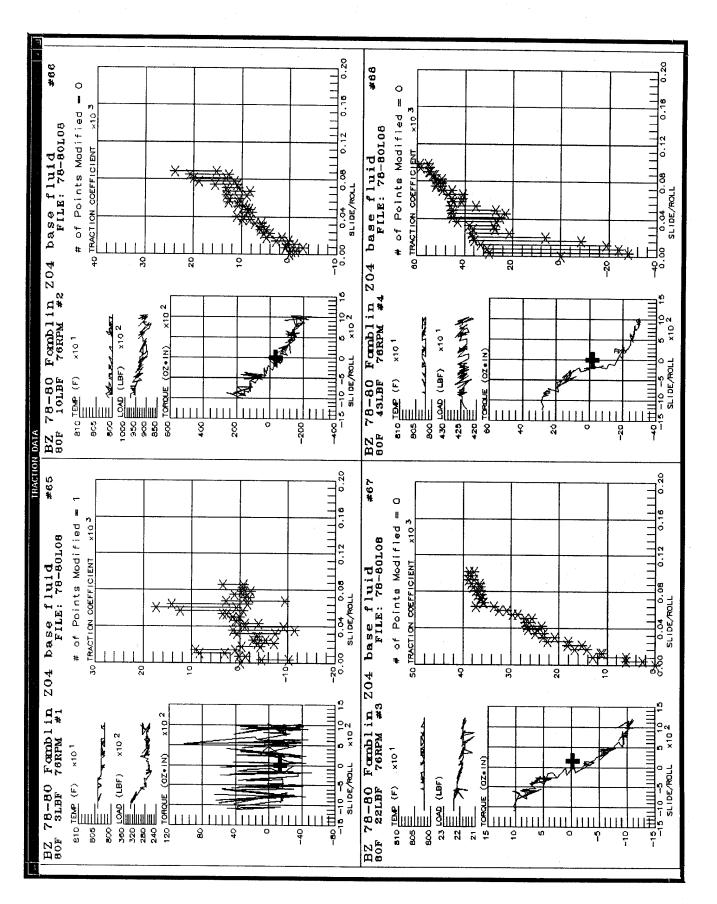


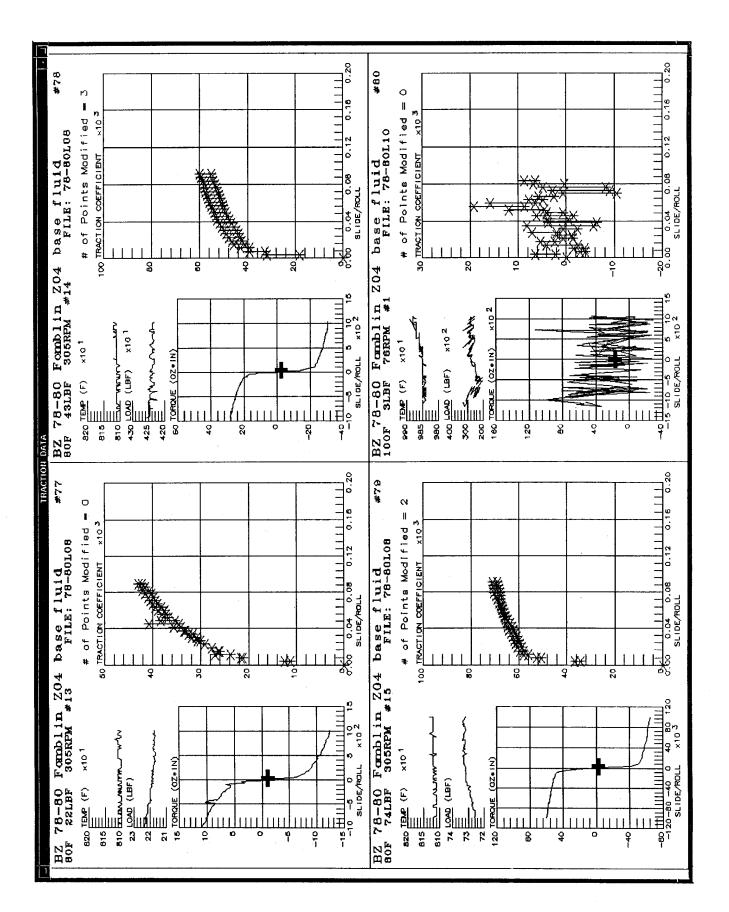


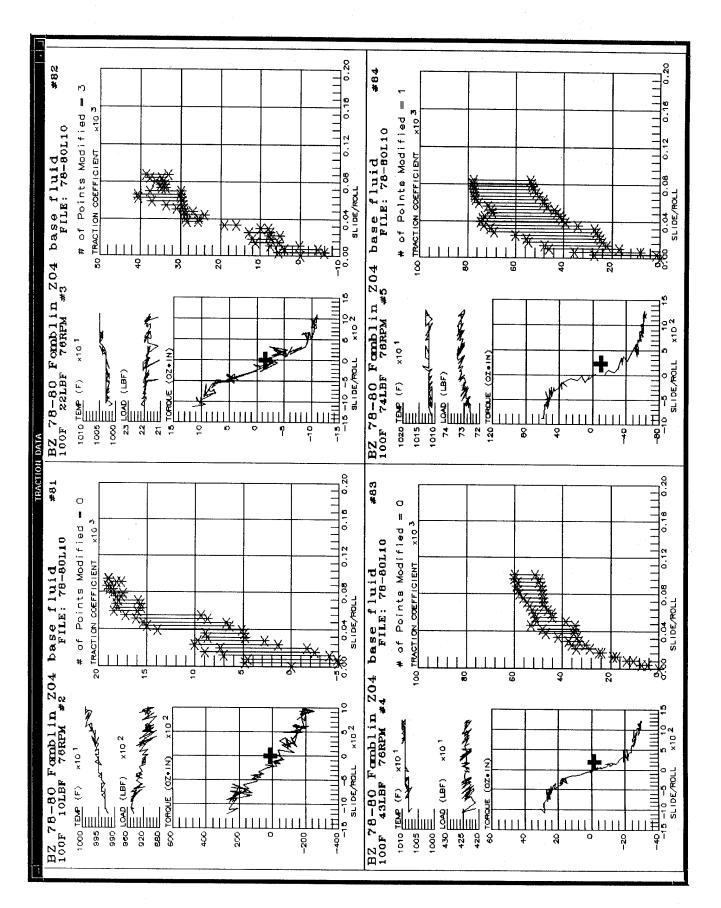


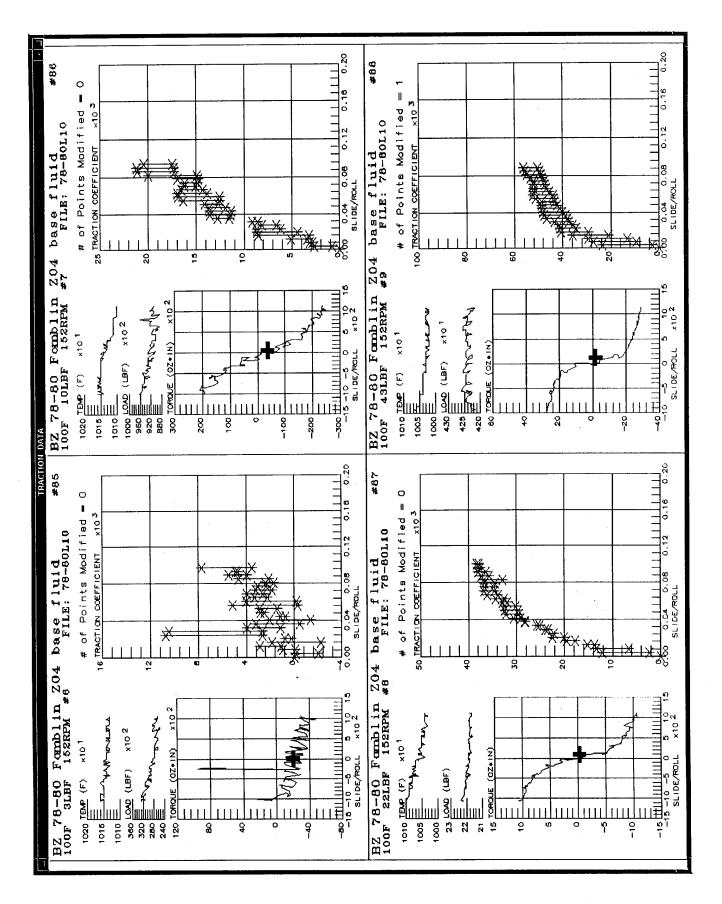


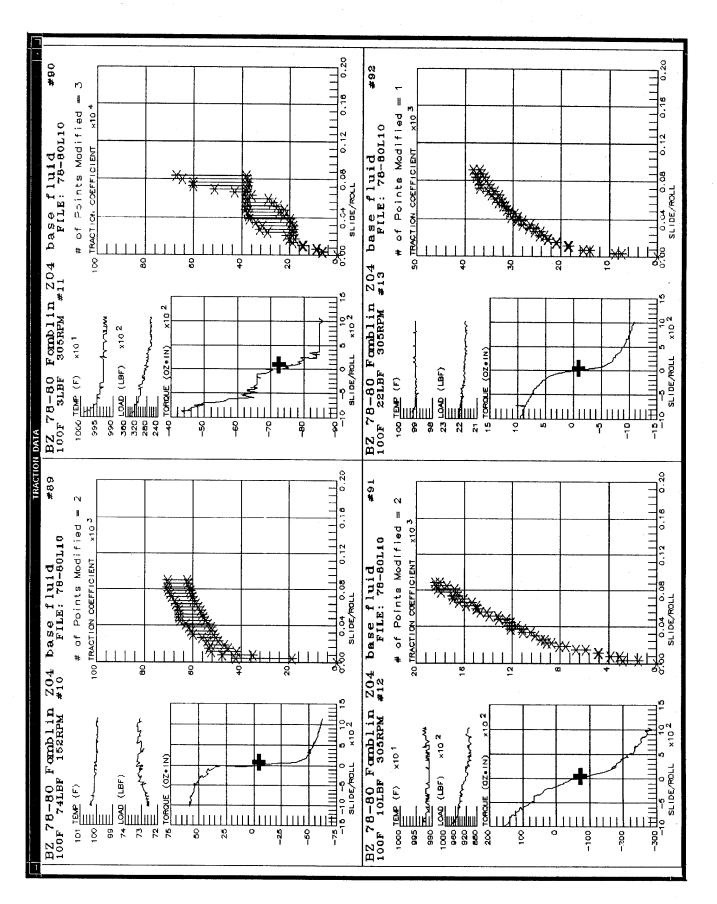


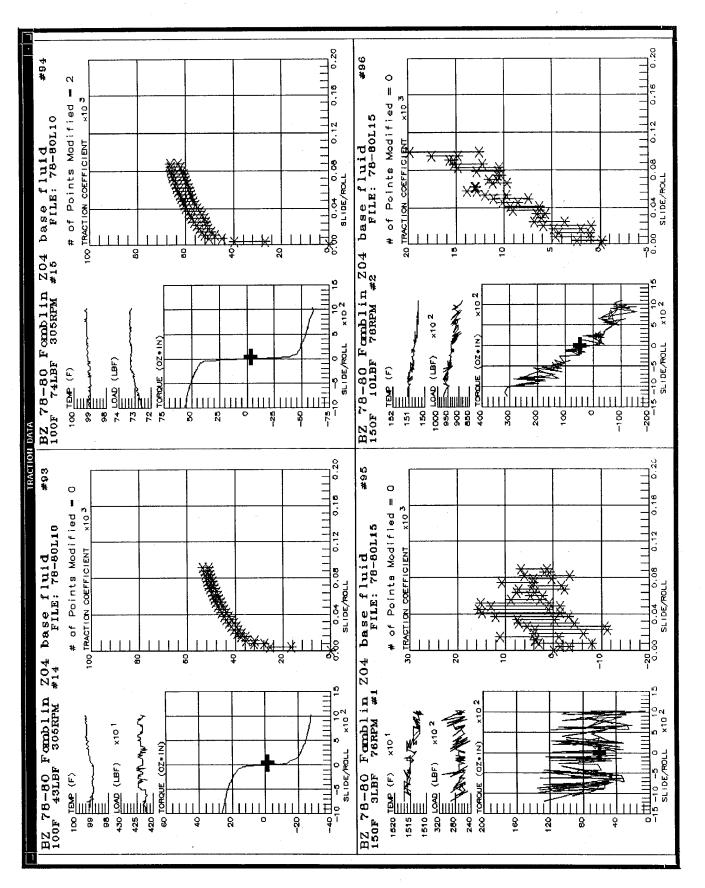


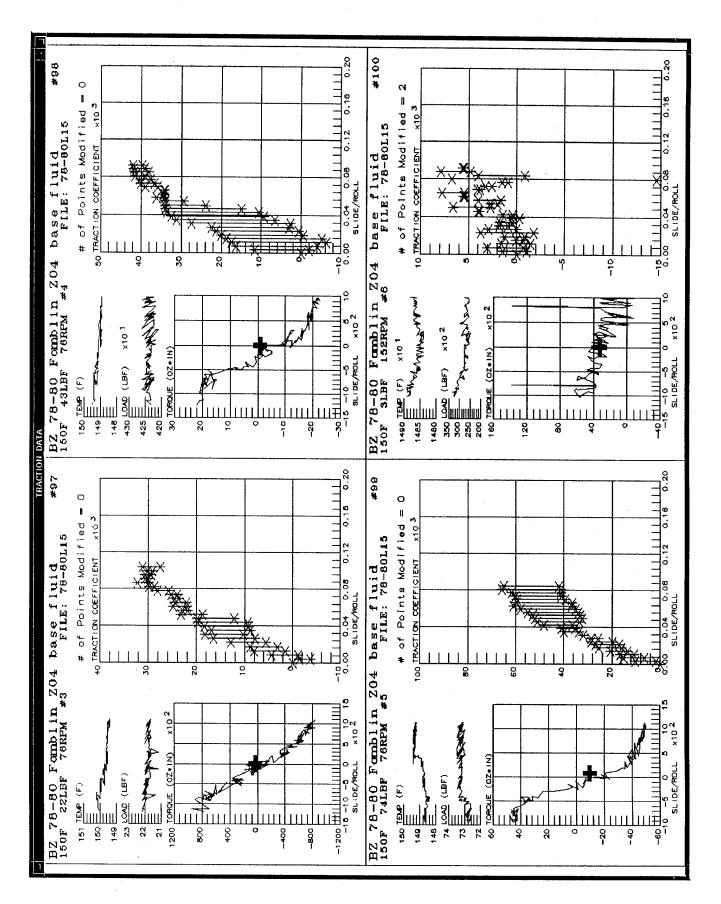


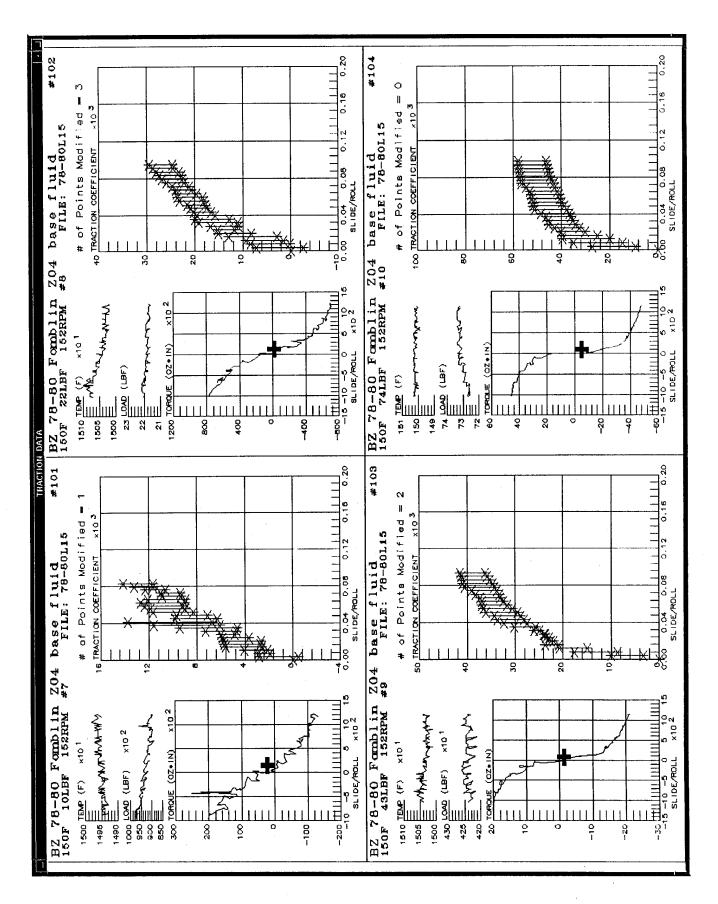


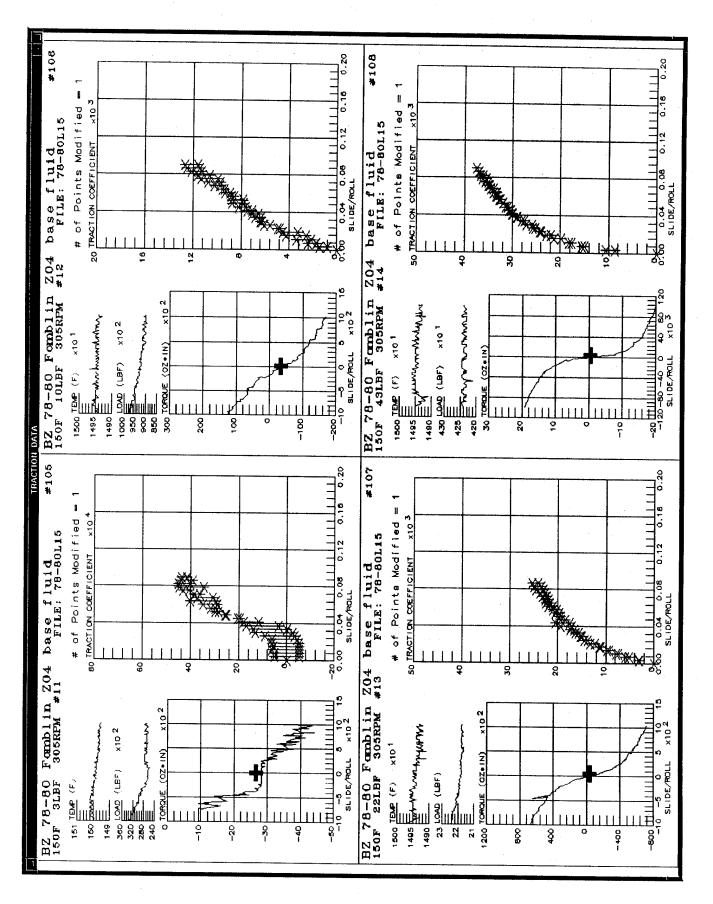


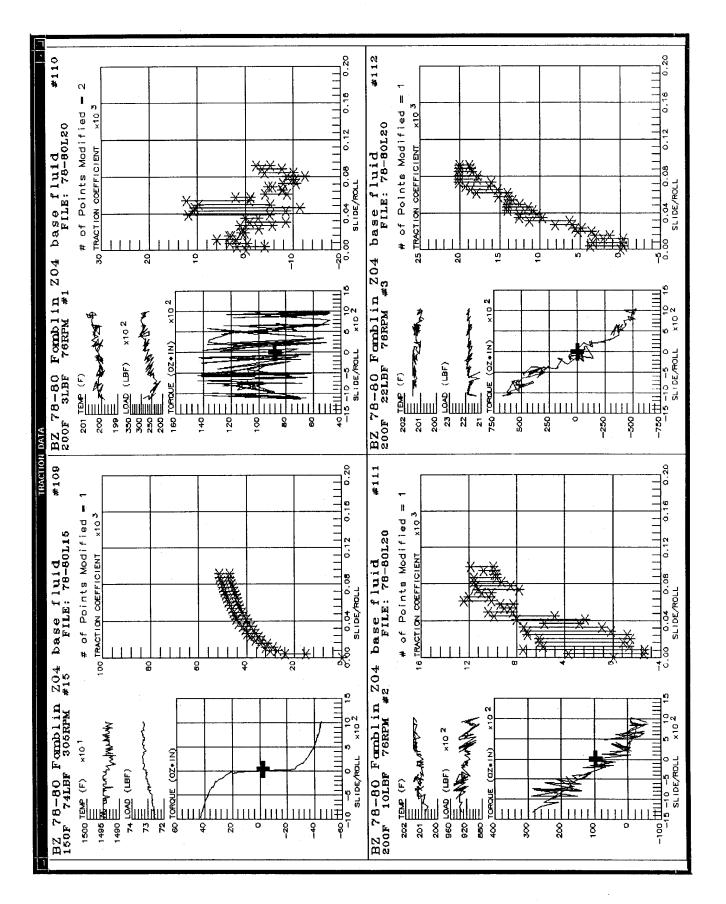


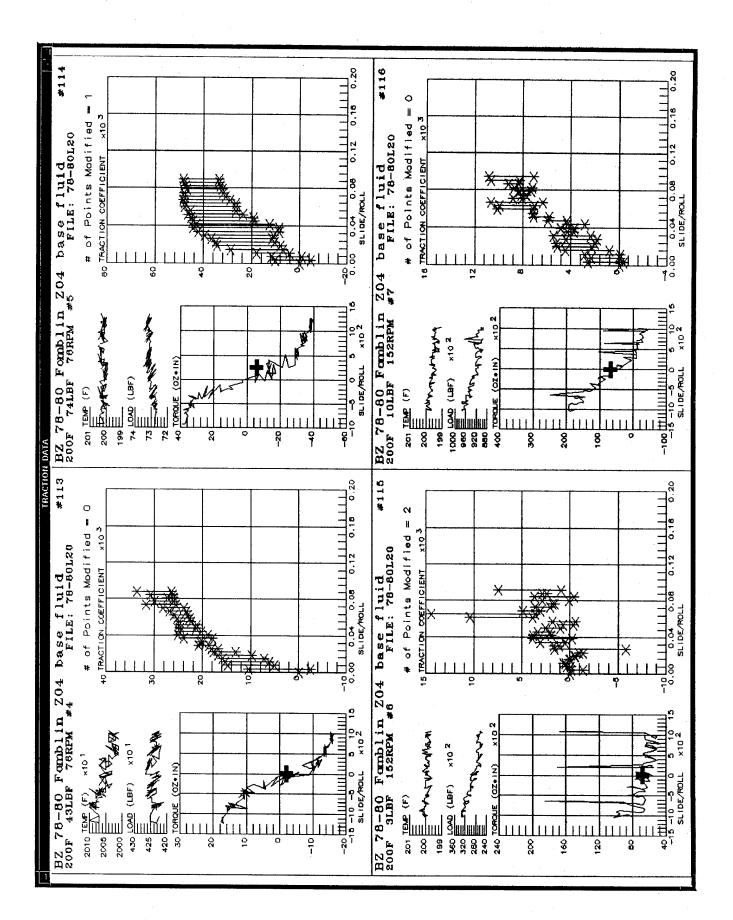


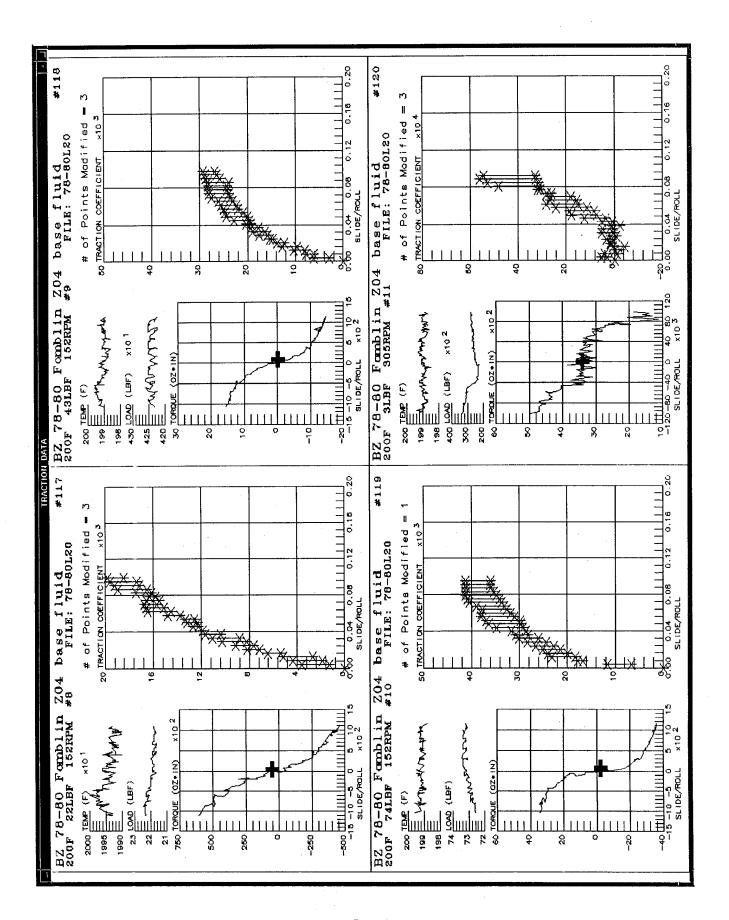


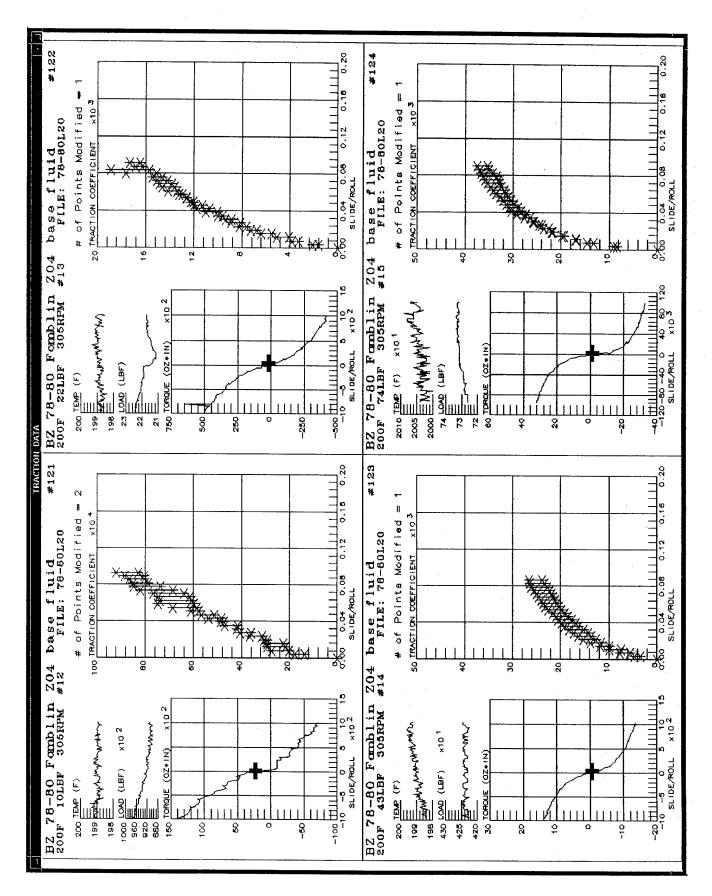


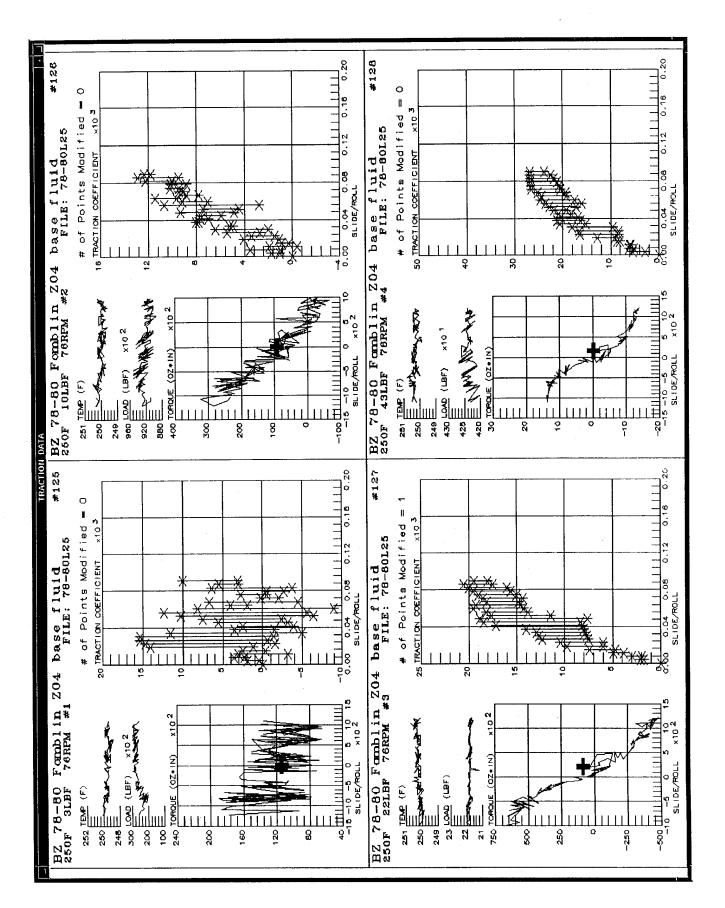


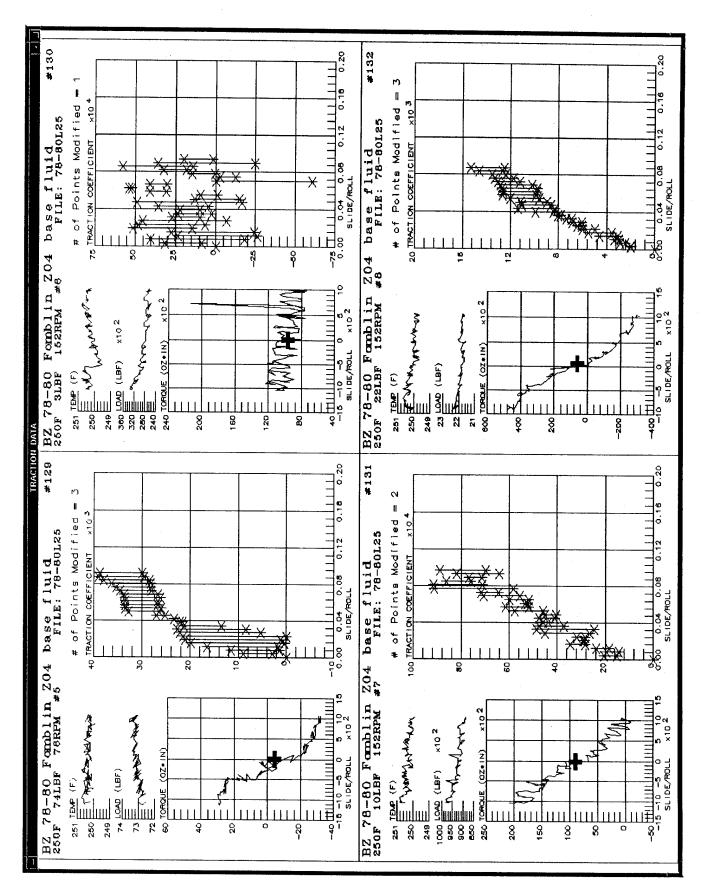


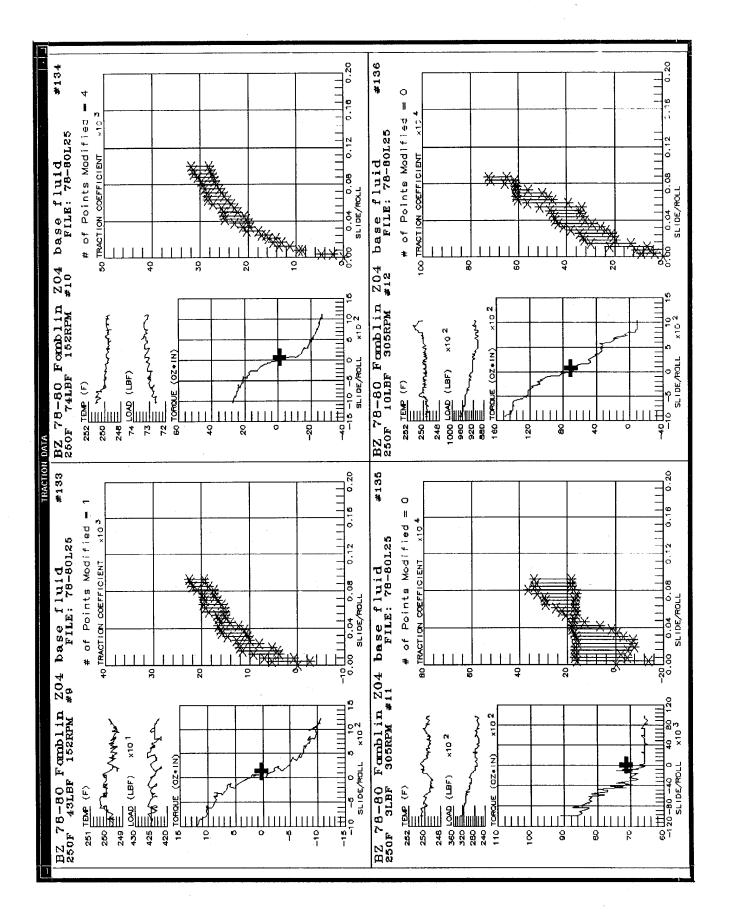


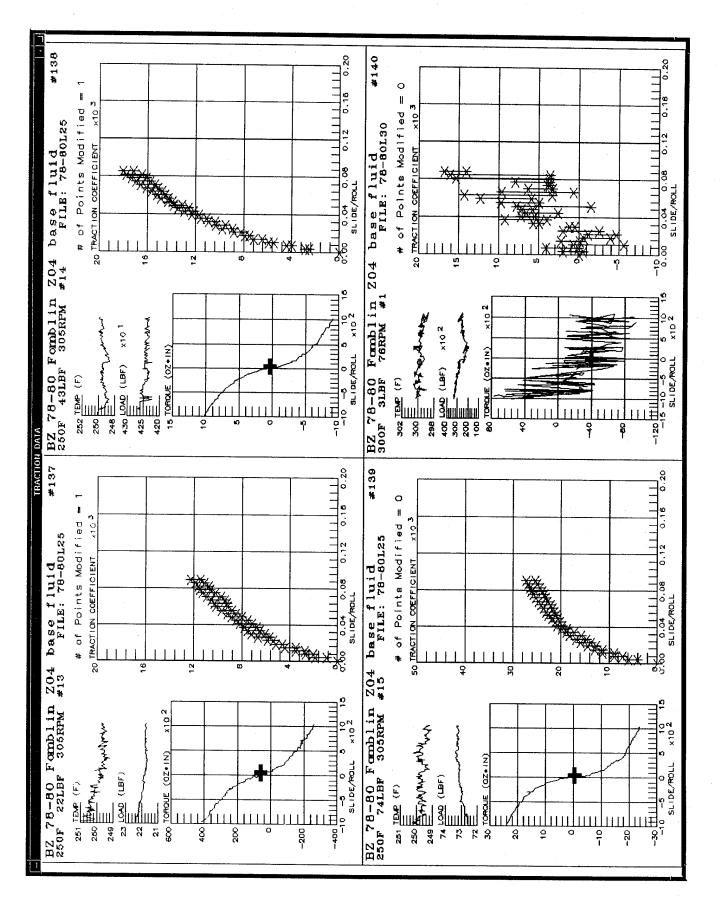


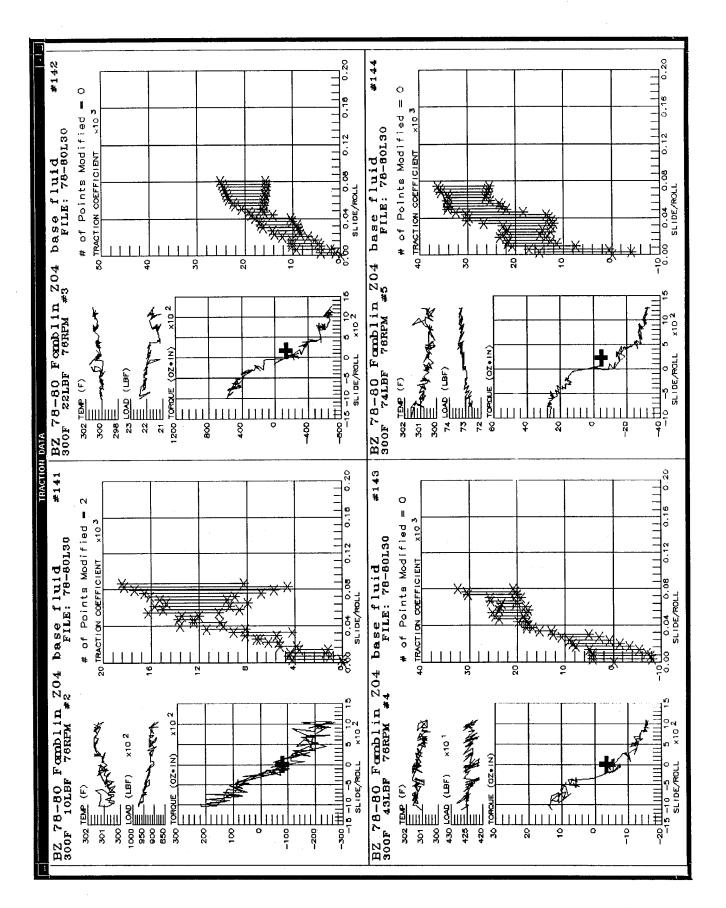


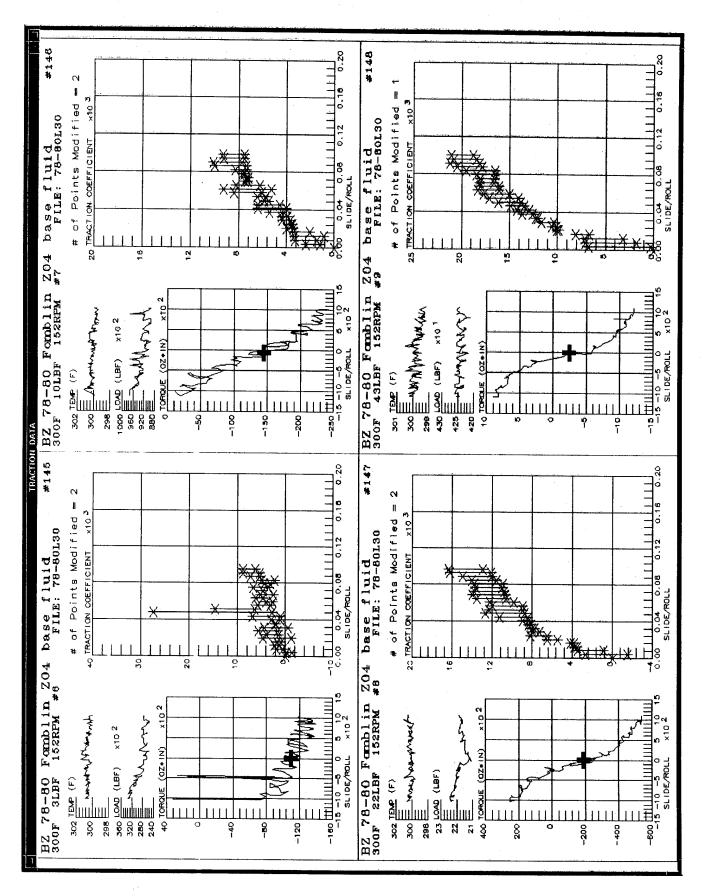


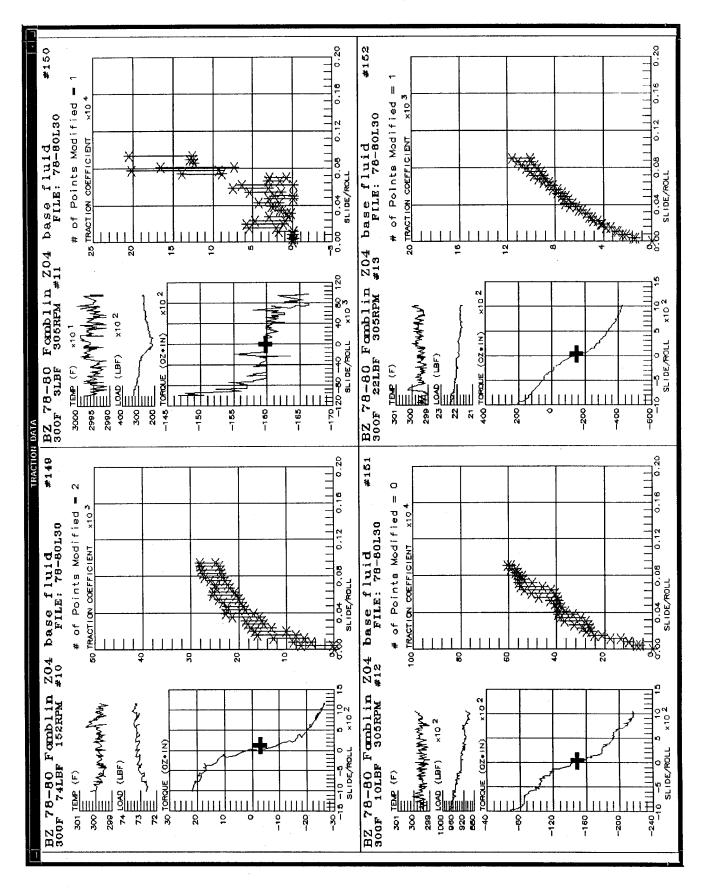


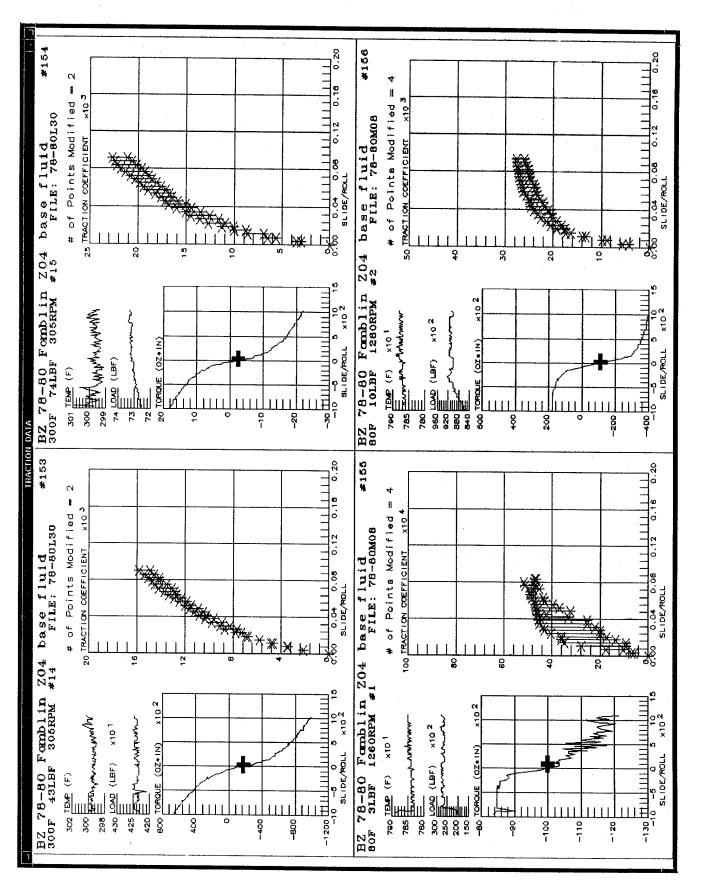


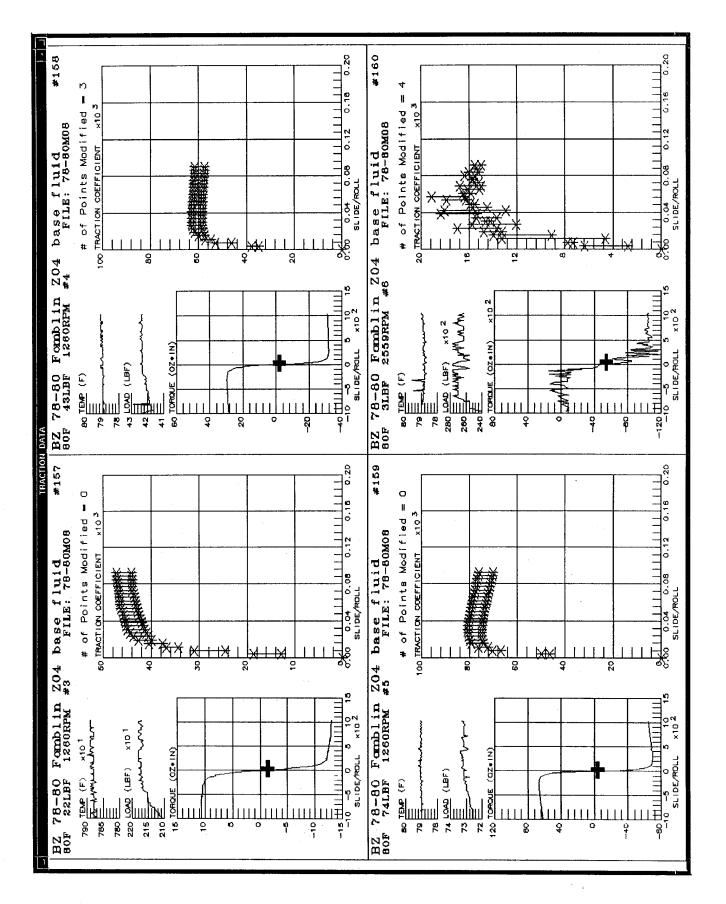


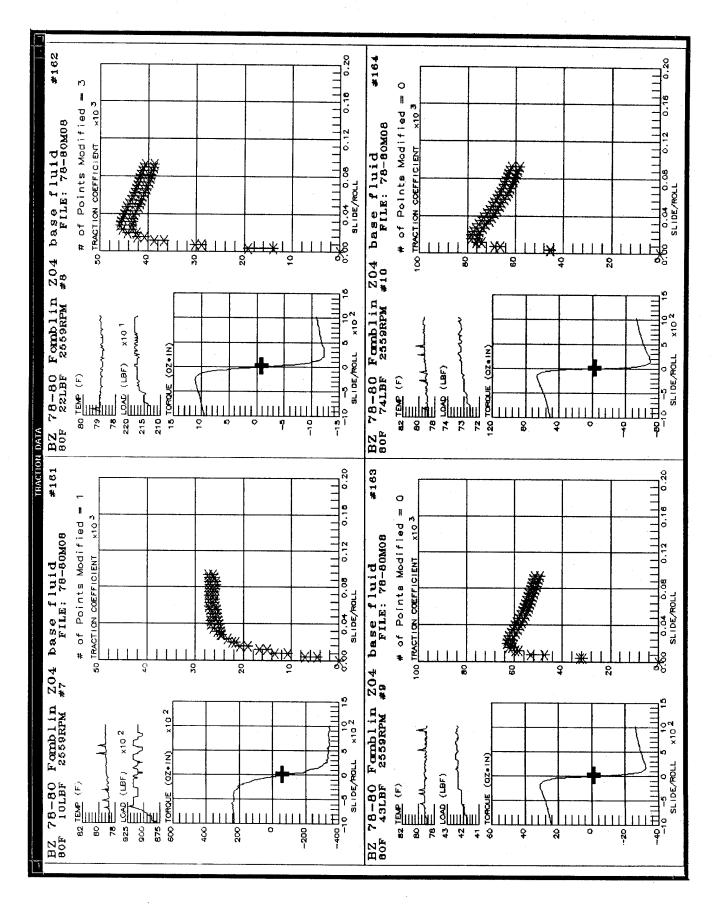


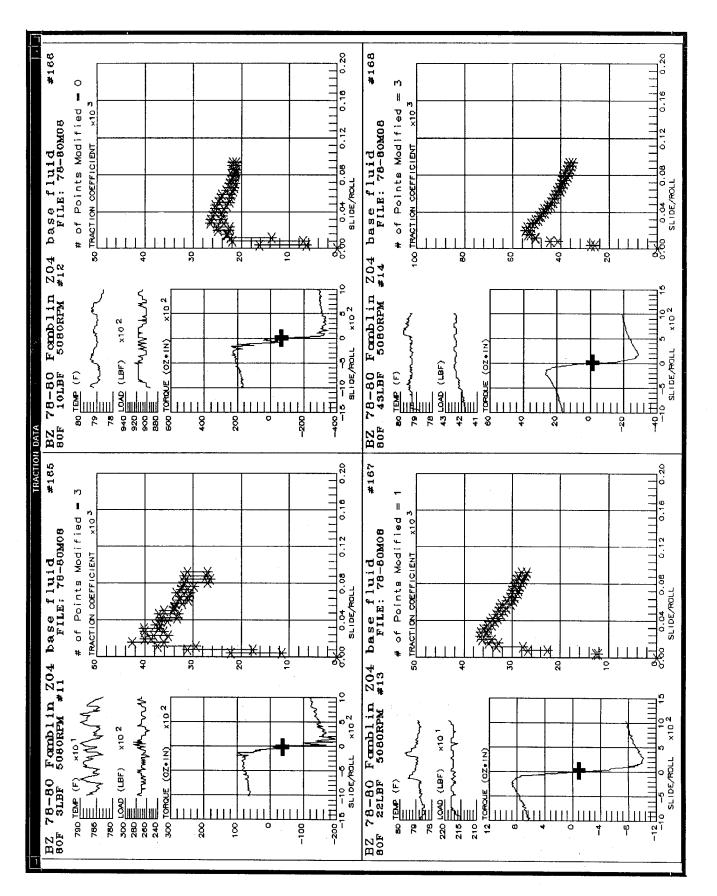


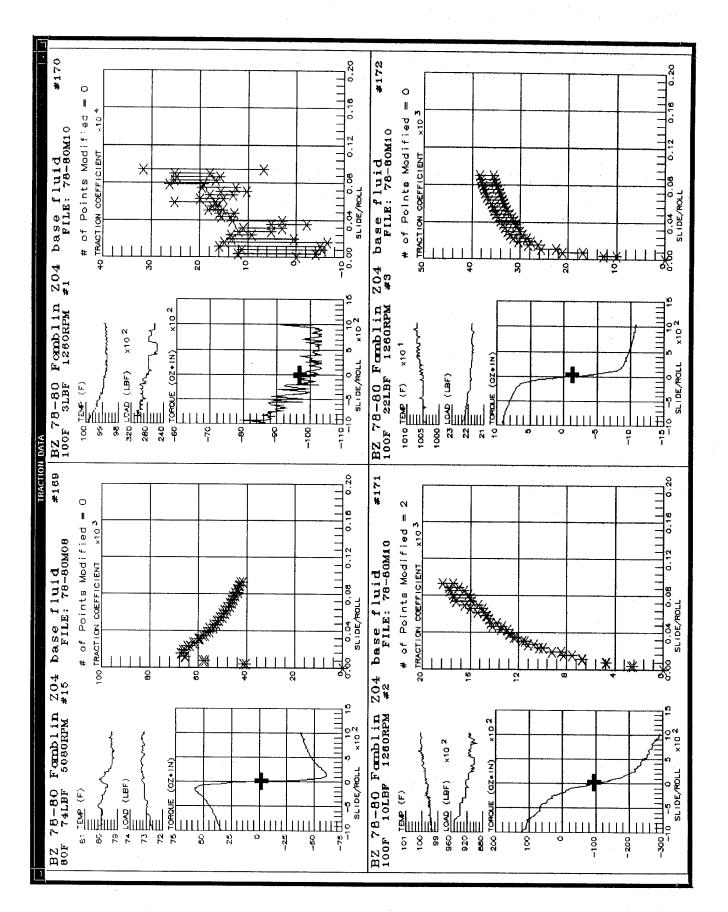


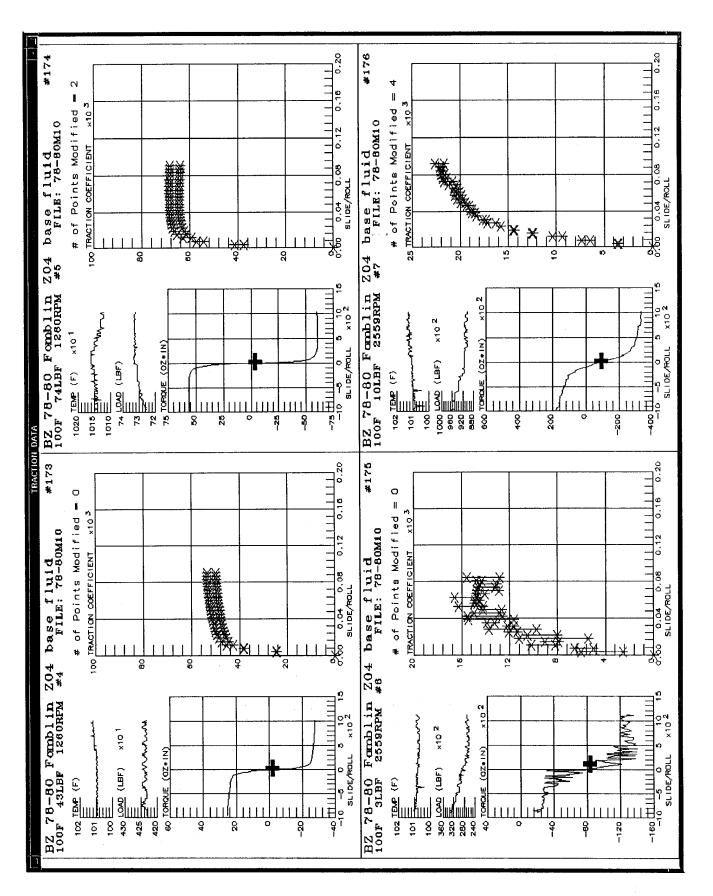


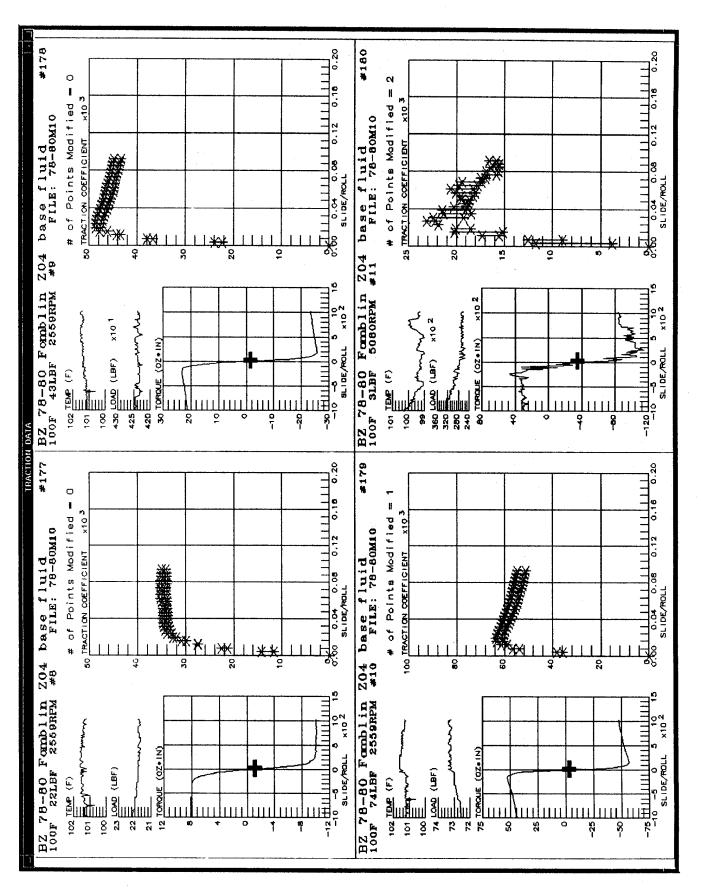


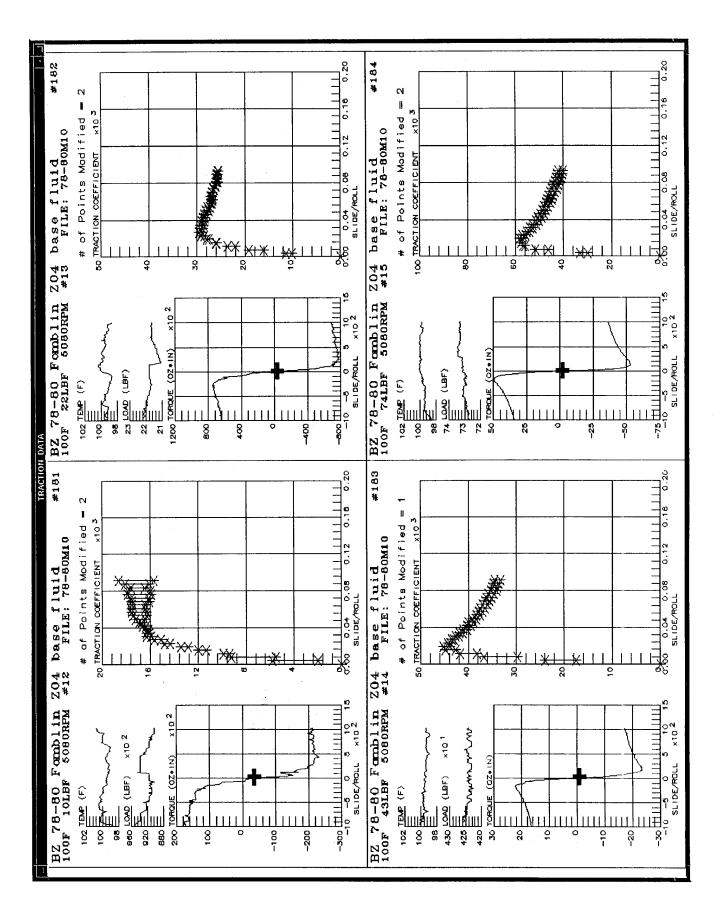


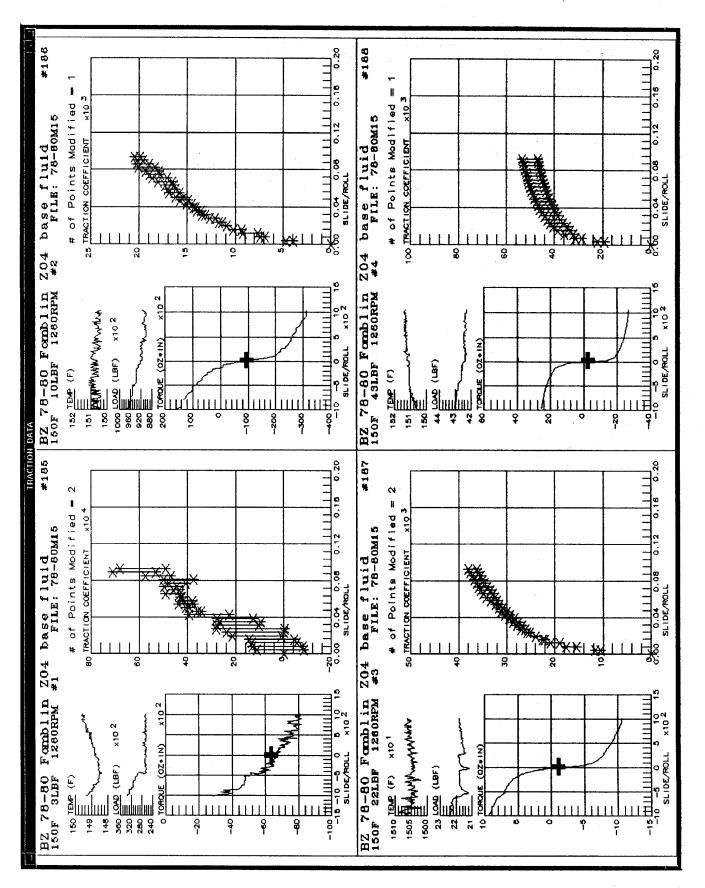


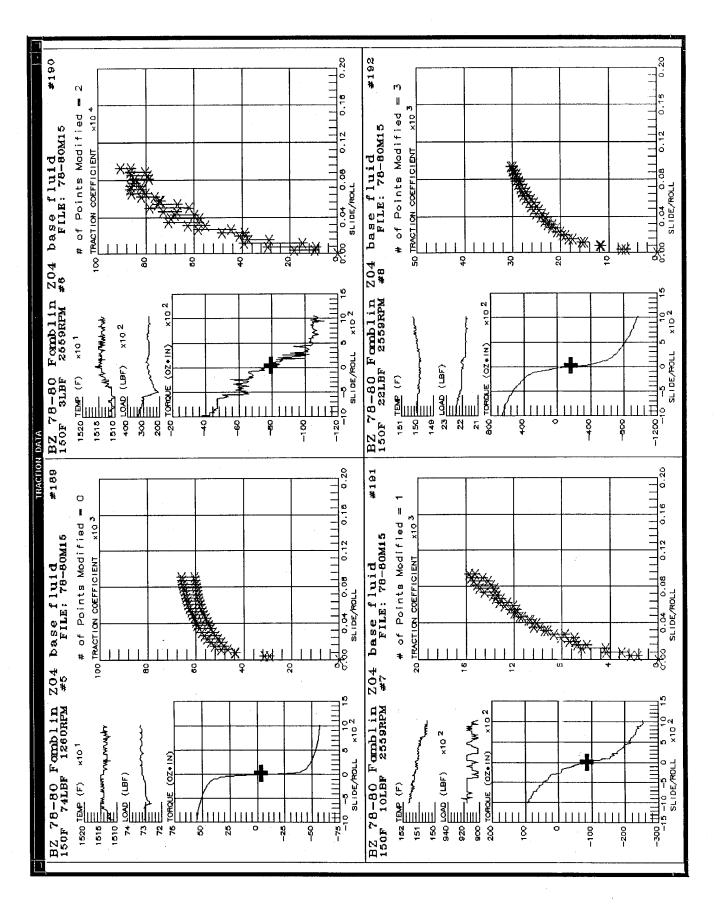


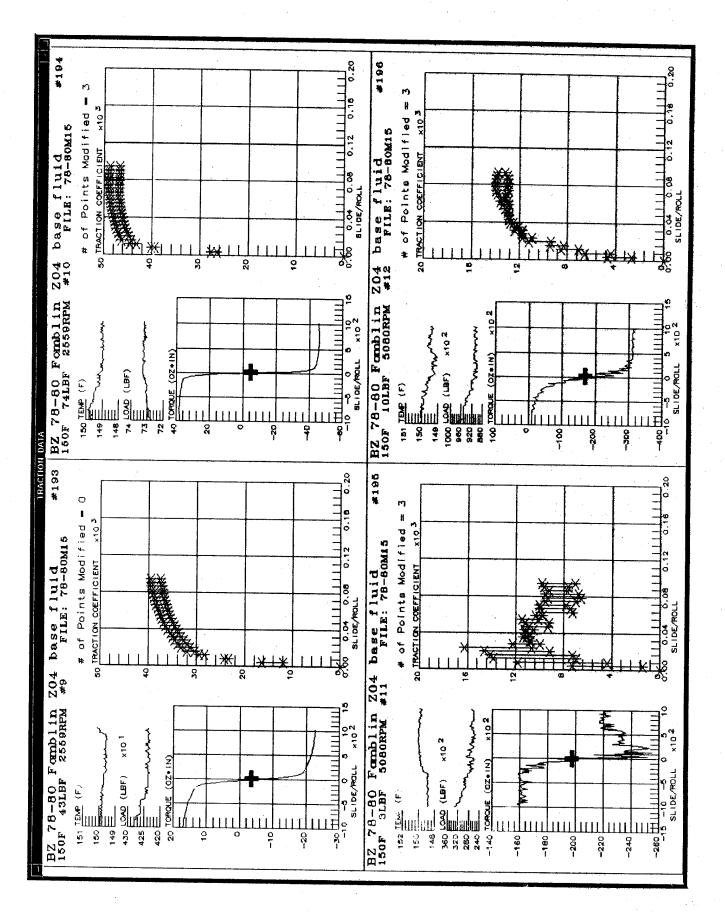


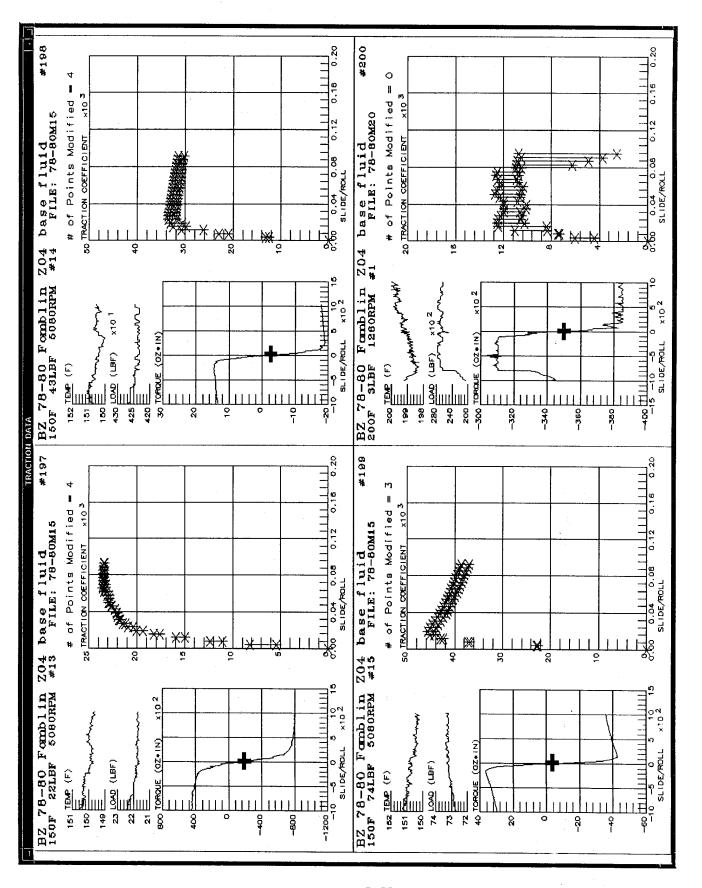


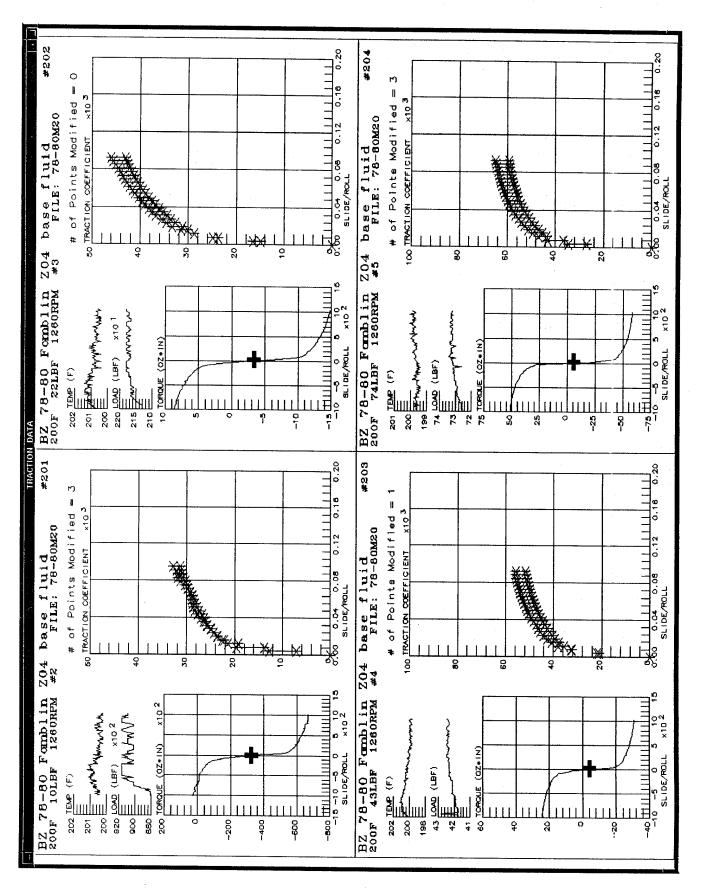


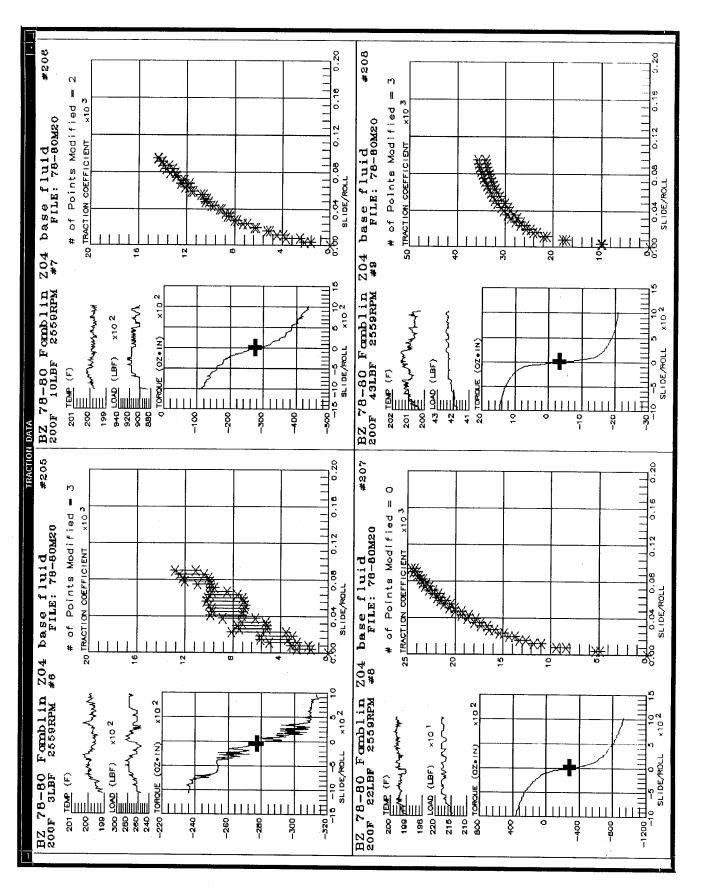


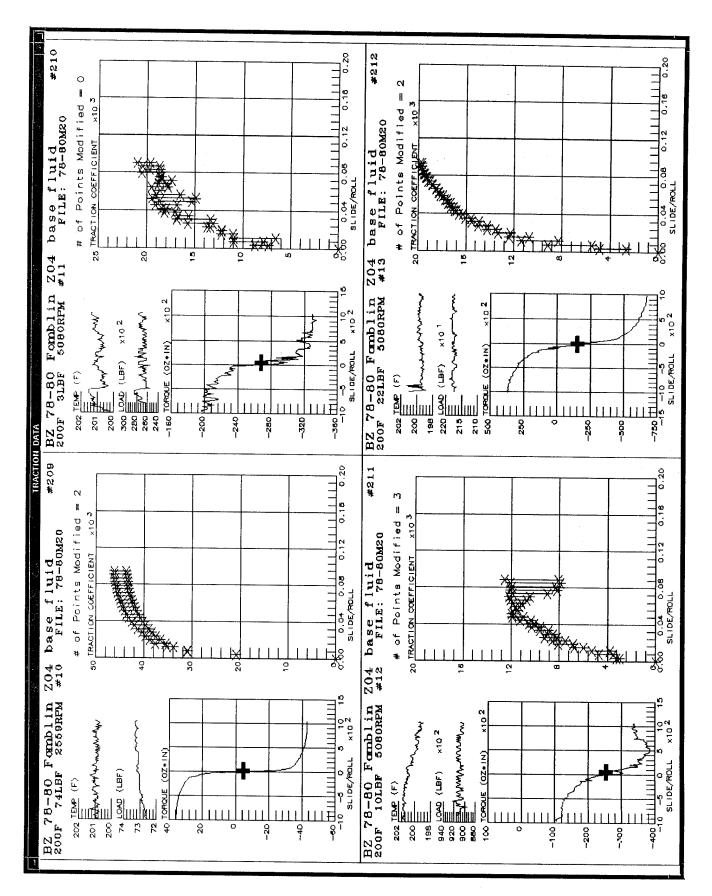


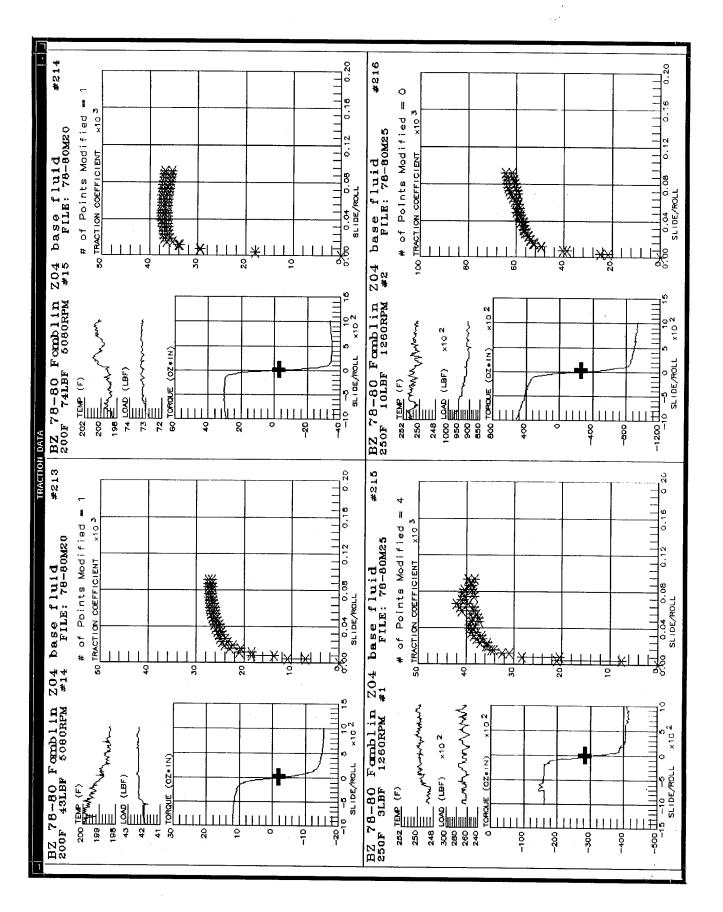


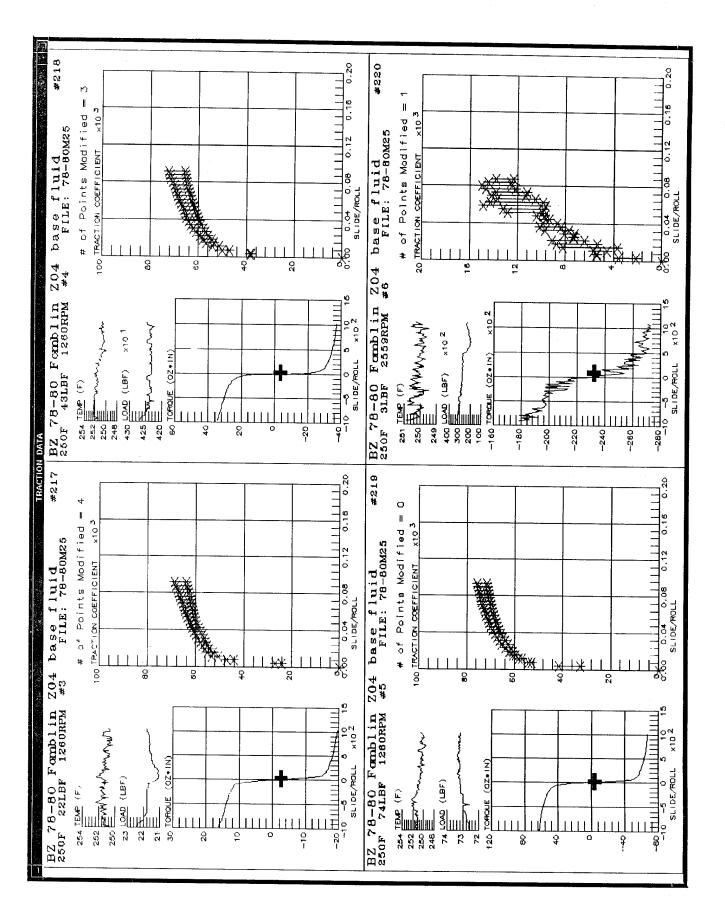


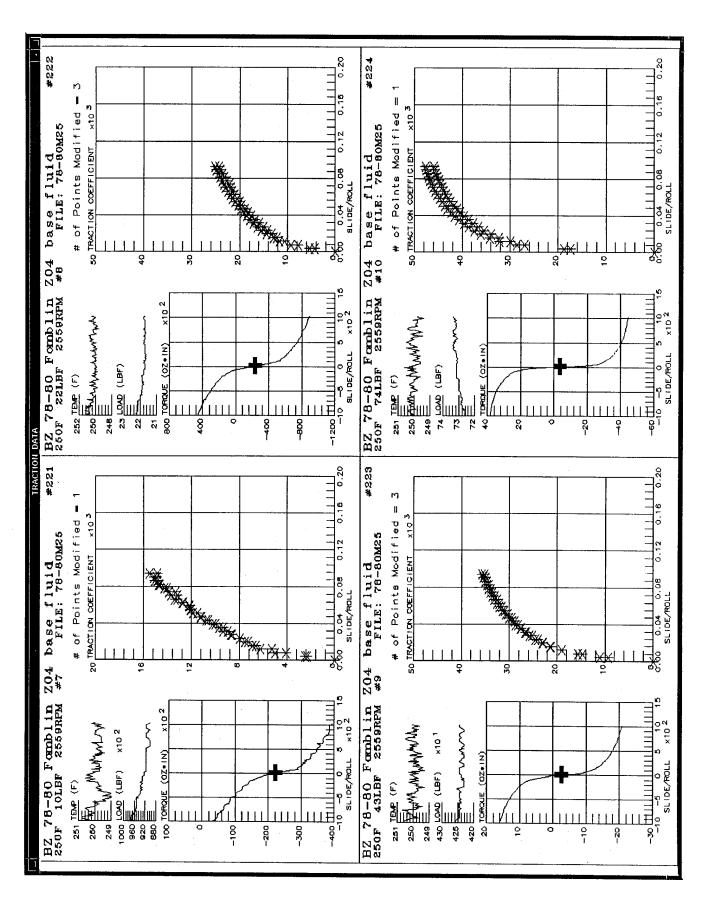


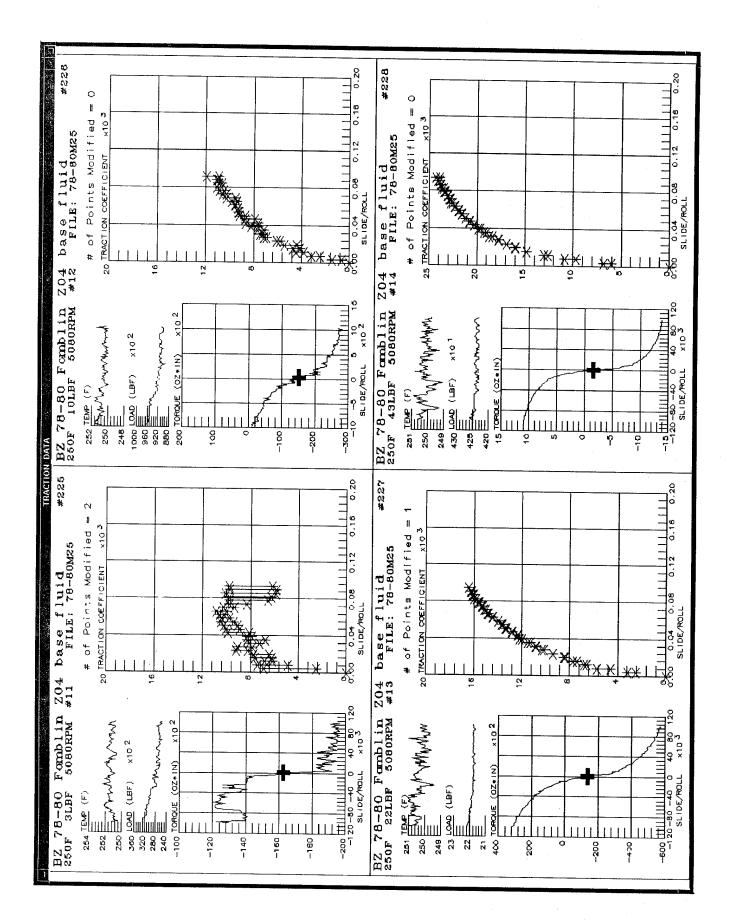


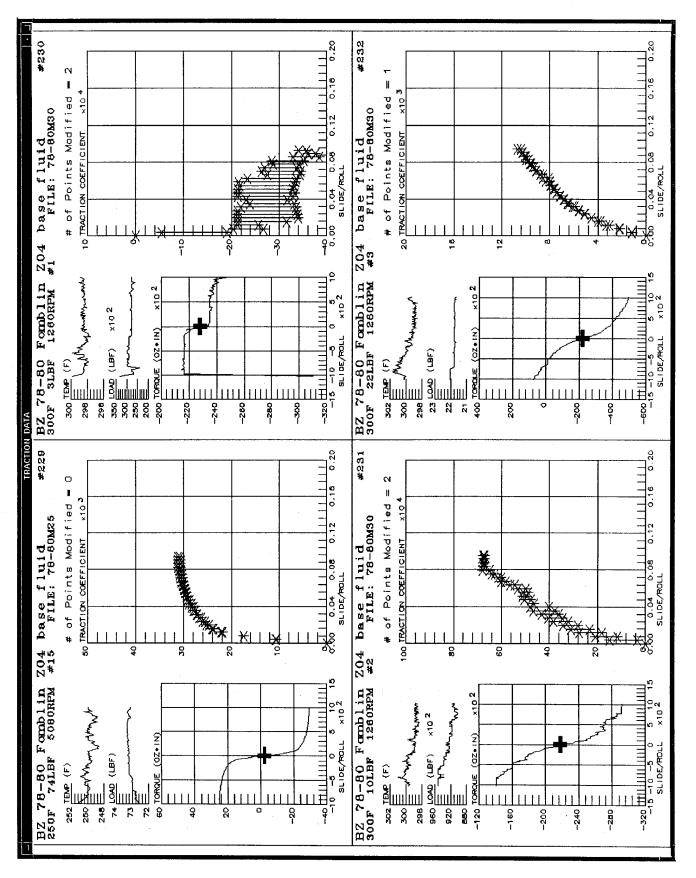


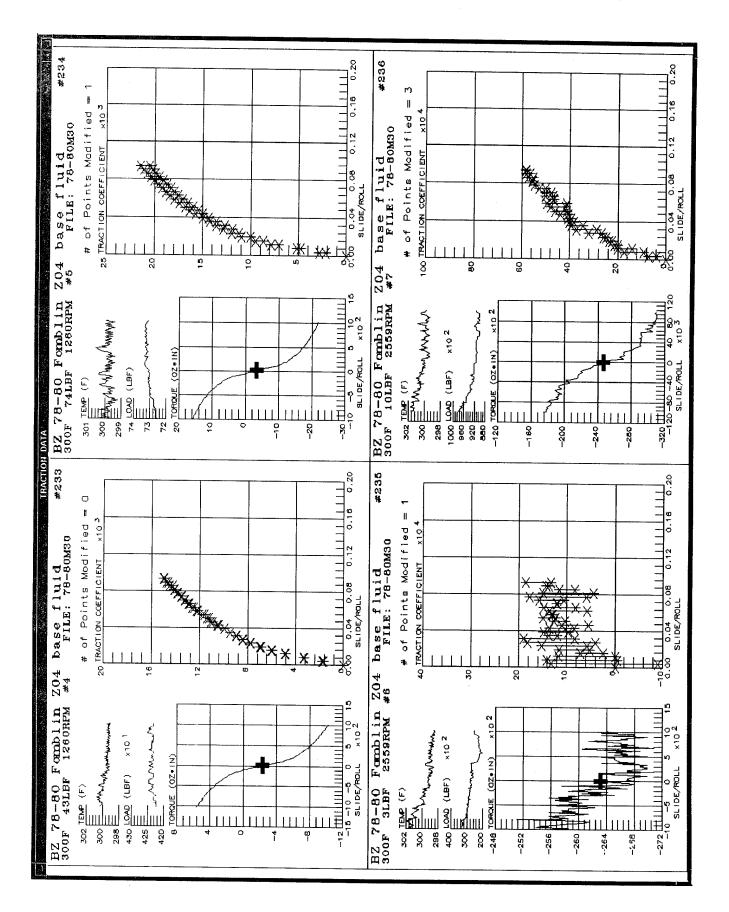


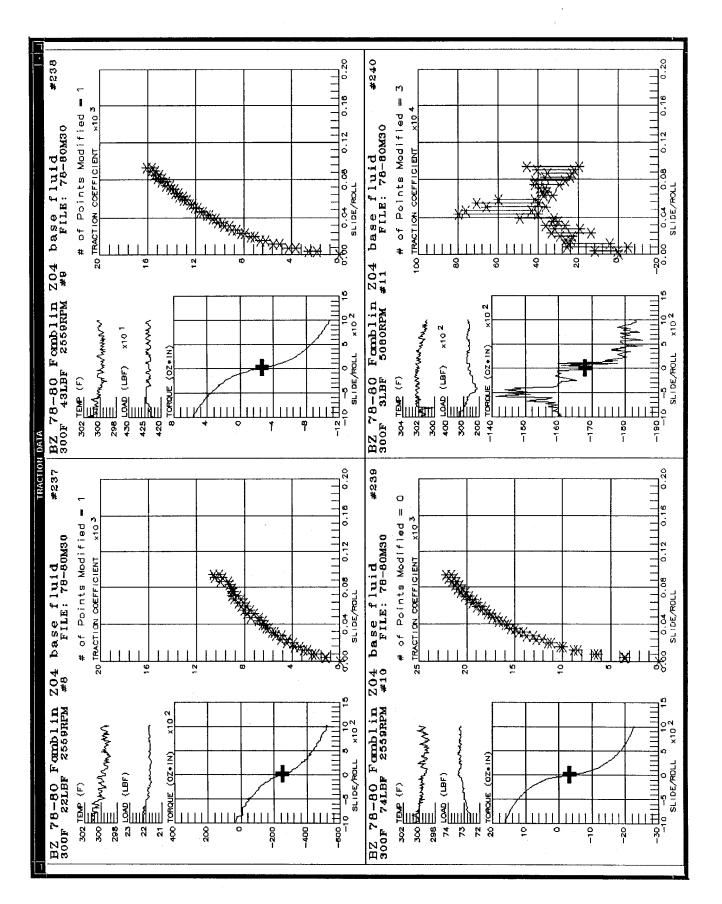


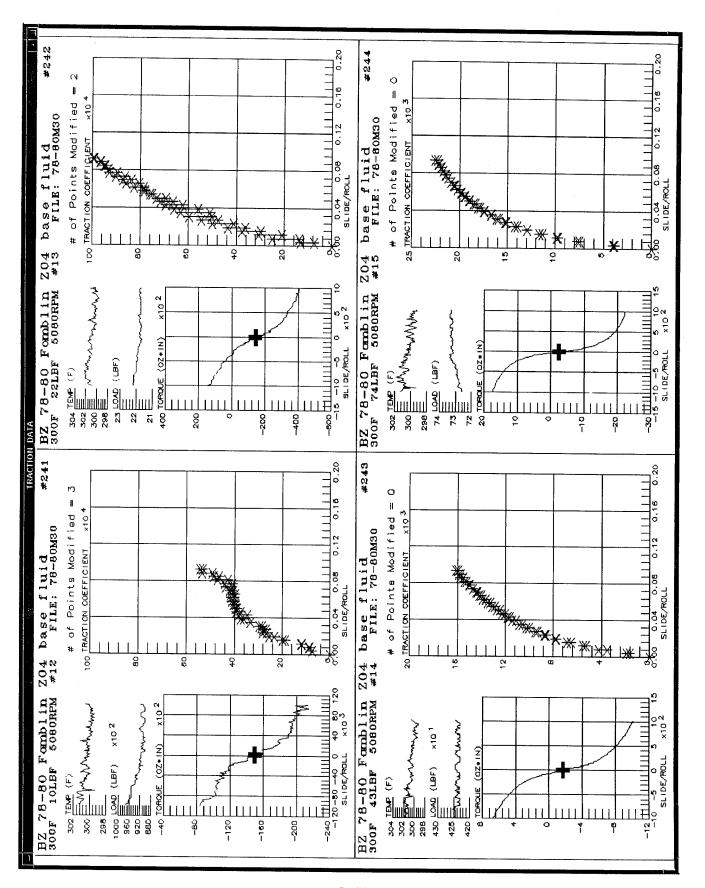


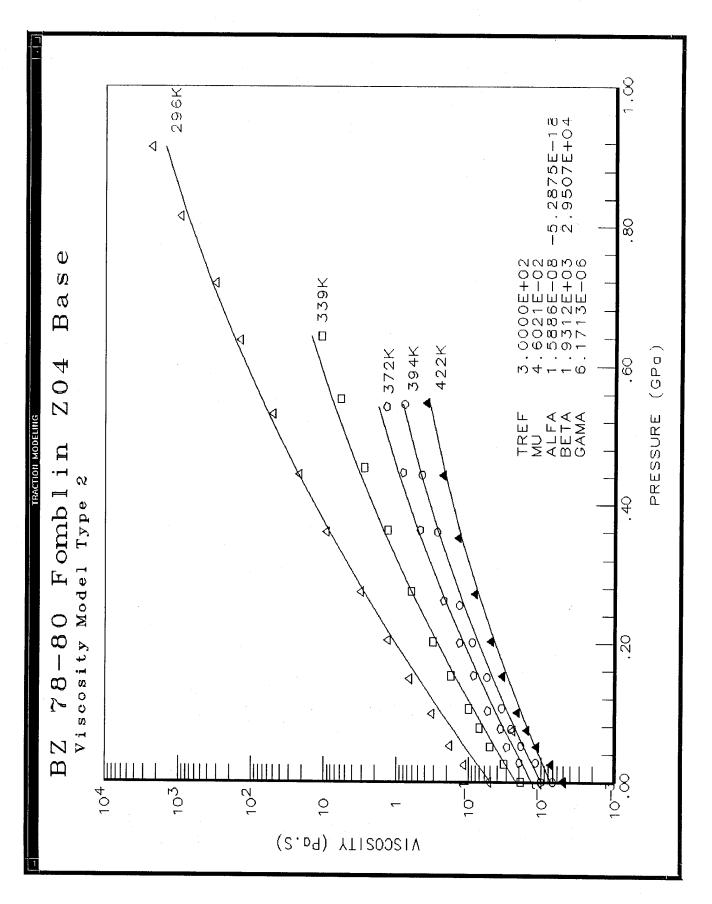


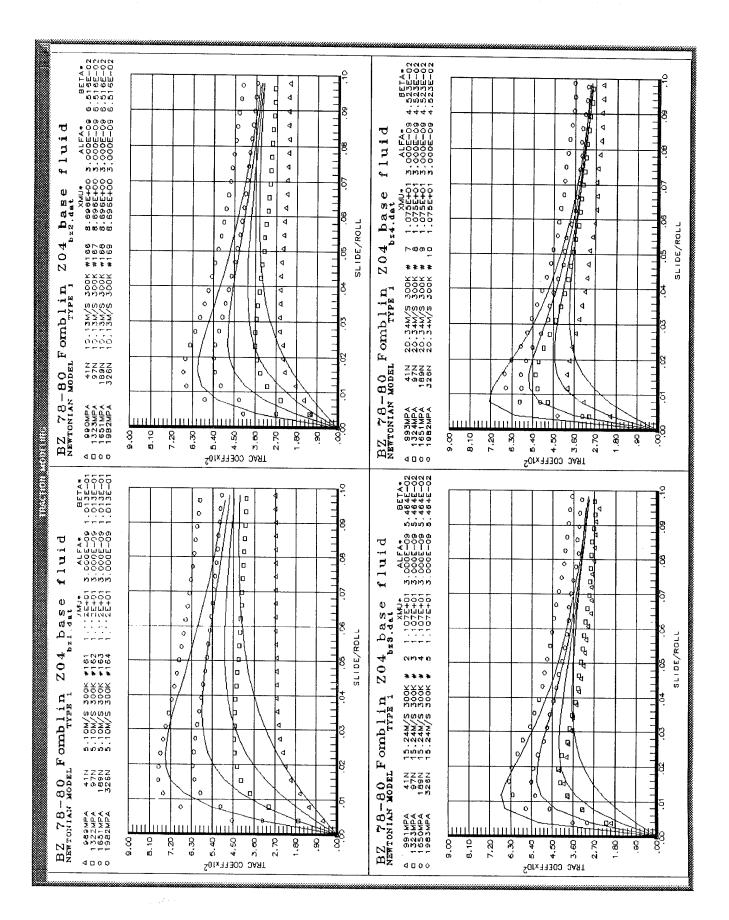


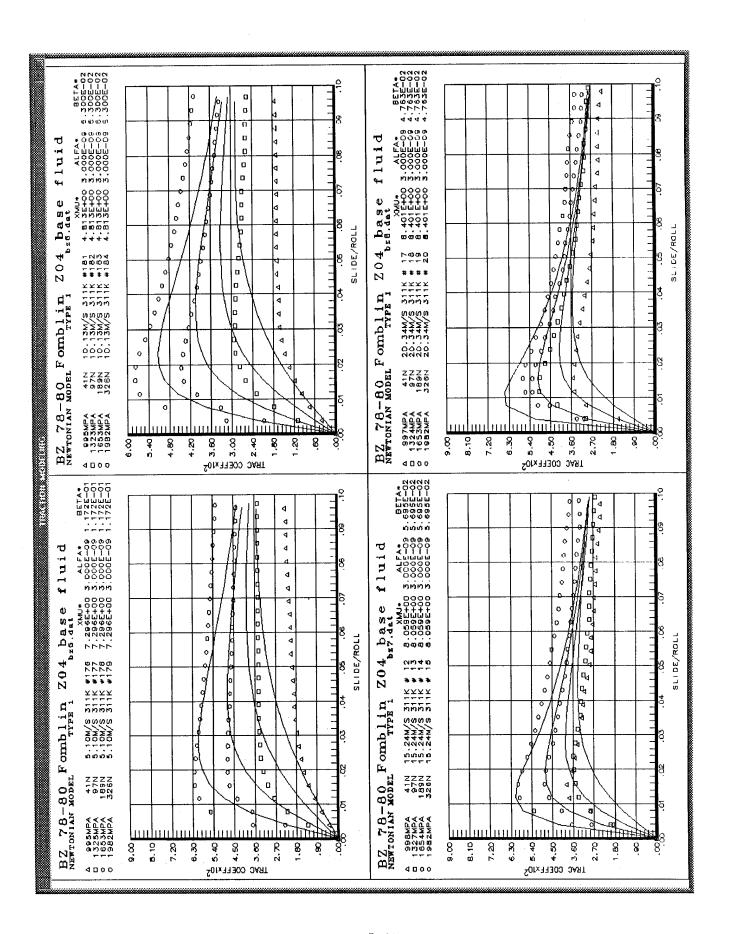


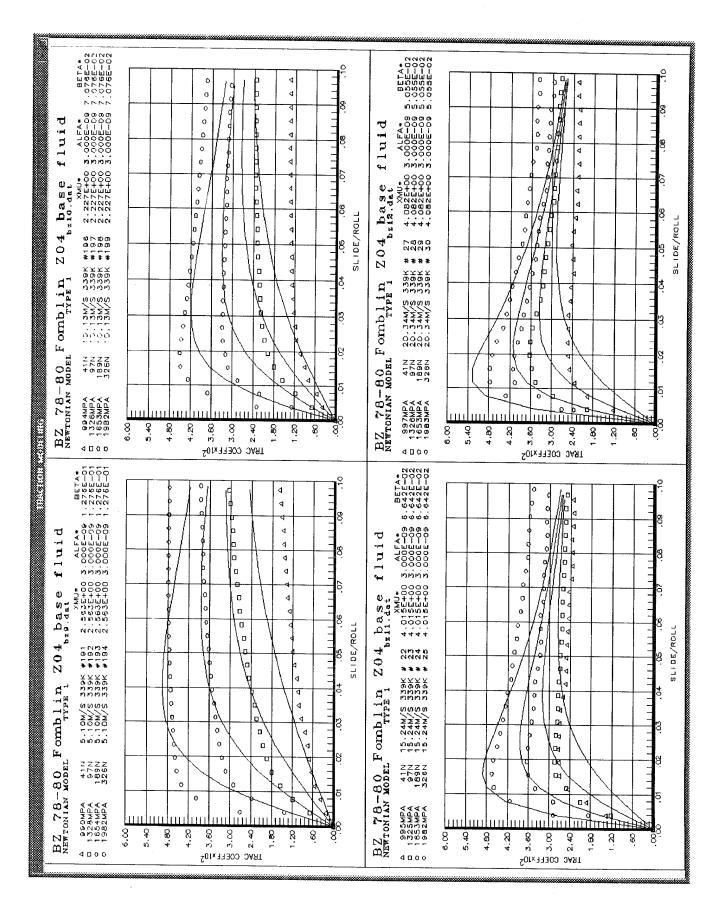


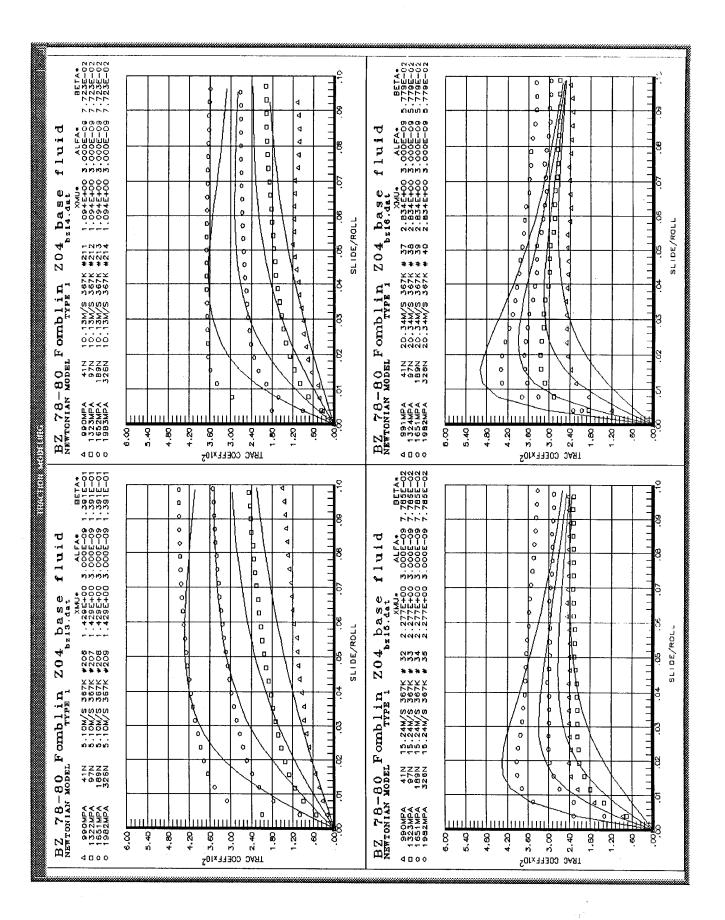


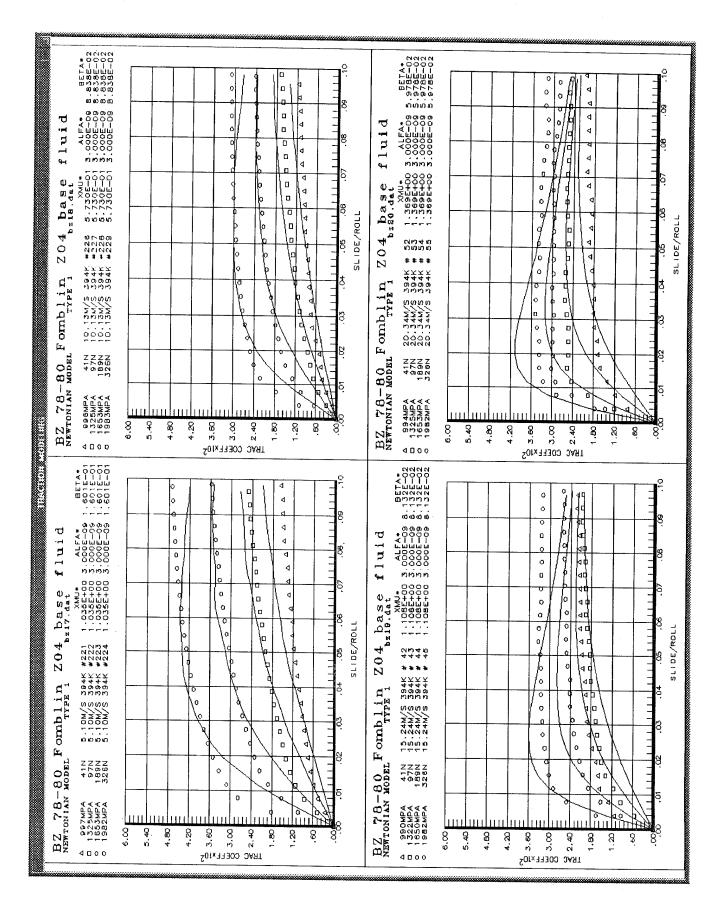


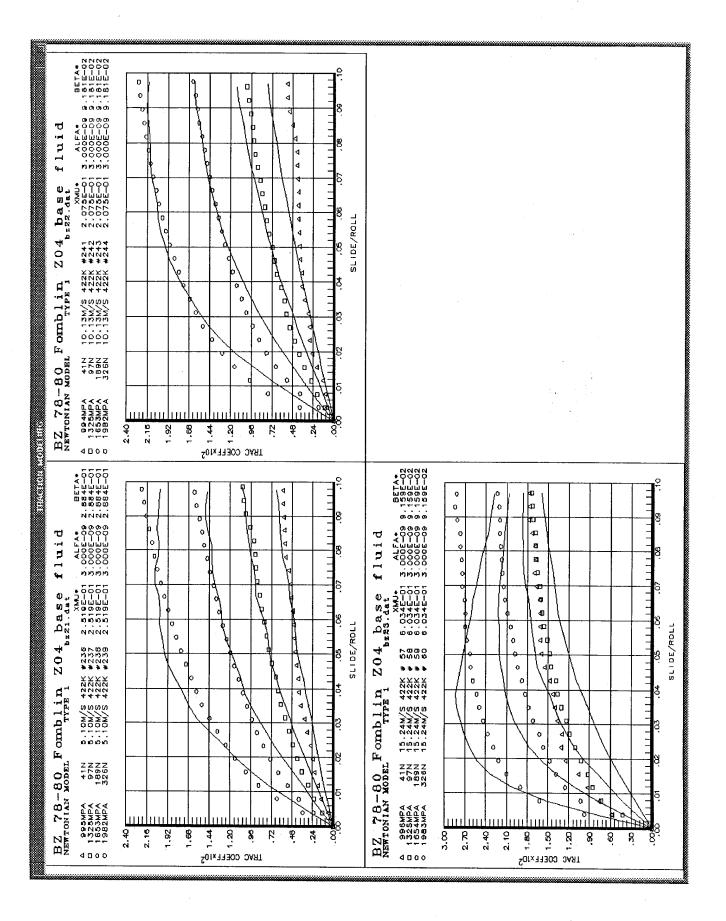












## 6. Traction Data Set E: 92-162 Fomblin Z + 0.5% Ausimont

CF 92-162 Fomblin Z-04 +0.5% Ausimont 0.75 0.75 0.70 Data set name:

Rolling radii [Disks 1 & 2] (in): Crown radii [Disks 1 & 2] (in):

Number of data sets found = 96

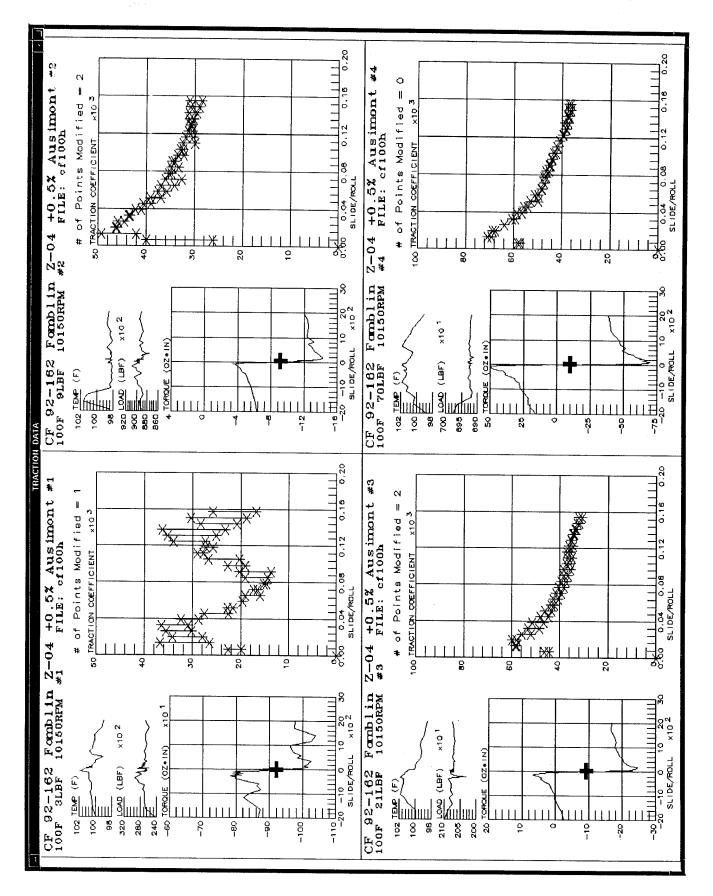
	Temp F	Load lbf	Rpm1	Rpm2	RollRpm	Points	Dataset/Test #
1	100.00	2.56	9135.00	11165.00	10150.00	50	cf100h #1
ż	100.00	8.63	9135.00	11165.00	10150.00	50	cf100h #2
3	100.00	20.45	9135.00	11165.00	10150.00	50	cf100h #3
4	100.00	69.01	9135.00	11165.00	10150.00	50	cf100h #4
5	100.00	2.56	572.00	699.00	635.50	50	cf100m #1
6	100.00	8.63	572.00	699.00	635.50	50	cf100m #2
7	100.00	20.45	572.00	699.00	635.50	50	cf100m #3
8	100.00	69.01	572.00	699.00	635.50	50	cf100m #4
9	100.00	2.56	2295.00	2805.00	2550.00	50	cf100m #5
10	100.00	8.63	2295.00	2805.00	2550.00	50	cf100m #6
11	100.00	20.45	2295.00	2805.00	2550.00	50	cf100m #7
12	100.00	69.01	2295.00	2805.00	2550.00	50	cf100m #8
13	100.00	2.56	4590.00	5610.00	5100.00	50	cf100m #9
14	100.00	8.63	4590.00	5610.00	5100.00	50	cf100m #10
15	100.00	20.45	4590.00	5610.00	5100.00	50	cf100m #11
16	100.00	69.01	4590.00	5610.00	5100.00	50	cf100m #12
17	150.00	2.56	9135.00	11165.00	10150.00	50	cf150h #1
18	150.00	8.63	9135.00	11165.00	10150.00	50	cf150h #2
19	150.00	20.45	9135.00	11165.00	10150.00	50	cf150h #3
20	150.00	69.01	9135.00	11165.00	10150.00	50	cf150h #4
21	150.00	2.56	572.00	699.00	635.50	50	cf150m #1
22	150.00	8.63	572.00	699.00	635.50	50	cf150m #2
23	150.00	20.45	572.00	699.00	635.50	50	cf150m #3
24	150.00	69.01	572.00	699.00	635.50	50	cf150m #4
25	150.00	2.56	2295.00	2805.00	2550.00	50	cf150m #5
26	150.00	8.63	2295.00	2805.00	2550.00	50	cf150m #6
27	150.00	20.45	2295.00	2805.00	2550.00	50	cf150m #7
28	150.00	69.01	2295.00	2805.00	2550.00	50	cf150m #8
29	150.00	2.56	4590.00	5610.00	5100.00	50	cf150m #9
30	150.00	8.63	4590.00	5610.00	5100.00	50	cf150m #10
31	150.00	20.45	4590.00	5610.00	5100.00	50	cf150m #11
32	150.00	69.01	4590.00	5610.00	5100.00	50	cf150m #12
33	200.00	2.56	9135.00	11165.00	10150.00	50	cf200h #1
34	200.00	8.63	9135.00	11165.00	10150.00	50	cf200h #2
35	200.00	20.45	9135.00	11165.00	10150.00	50	cf200h #3
36	200.00	69.01	9135.00	11165.00	10150.00	50	cf200h #4
37	200.00	2.56	572.00	699.00	635.50	50	cf200m #1
38	200.00	8.63	572.00	699.00	635.50	50	cf200m #2
39	200.00	20.45	572.00	699.00	635.50	50	cf200m #3
40	200.00	69.01	572.00	699.00	635.50	50	cf200m #4
41	200.00	2.56	2295.00	2805.00	2550.00	50	cf200m #5
42	200.00	8.63	2295.00	2805.00	2550.00	50	cf200m #6
43	200.00	20.45	2295.00	2805.00	2550.00	50	cf200m #7
44	200.00	69.01	2295.00	2805.00	2550.00	50	cf200m #8
45	200.00	2.56	4590.00	5610.00	5100.00	50	cf200m #9
46	200.00	8.63	4590.00	5610.00	5100.00	50	cf200m #10
47	200.00	20.45	4590.00	5610.00	5100.00	50	cf200m #11
48	200.00	69.01	4590.00	5610.00	5100.00	50	cf200m #12
49	250.00	2.56	9135.00	11165.00	10150.00	50	cf250h #1
50	250.00	8.63	9135.00	11165.00	10150.00	50	cf250h #2

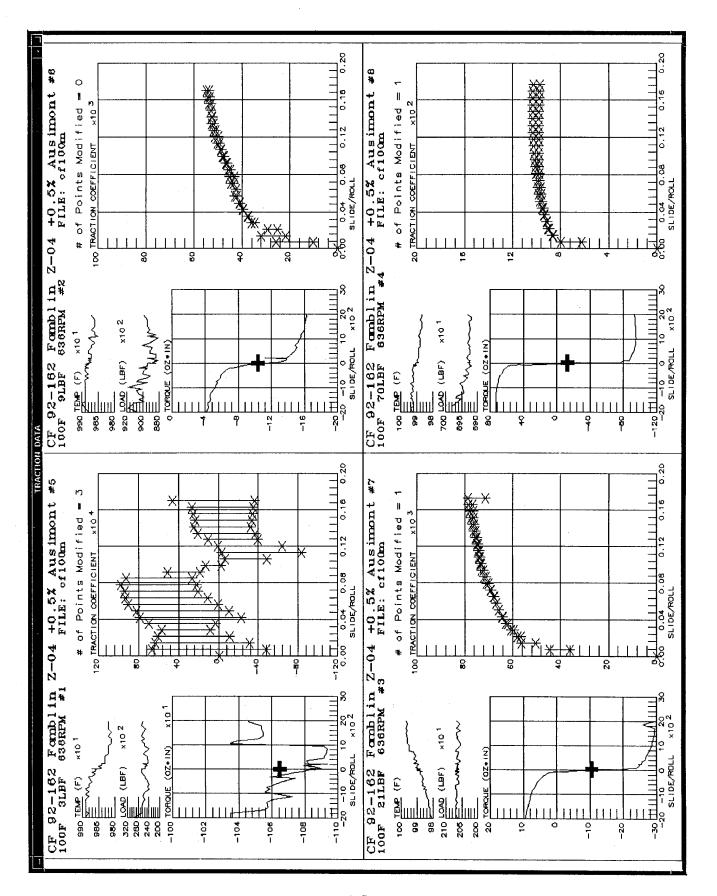
Data set: CF 92-162 Fomblin Z-04 +0.5% Ausimont ....continued

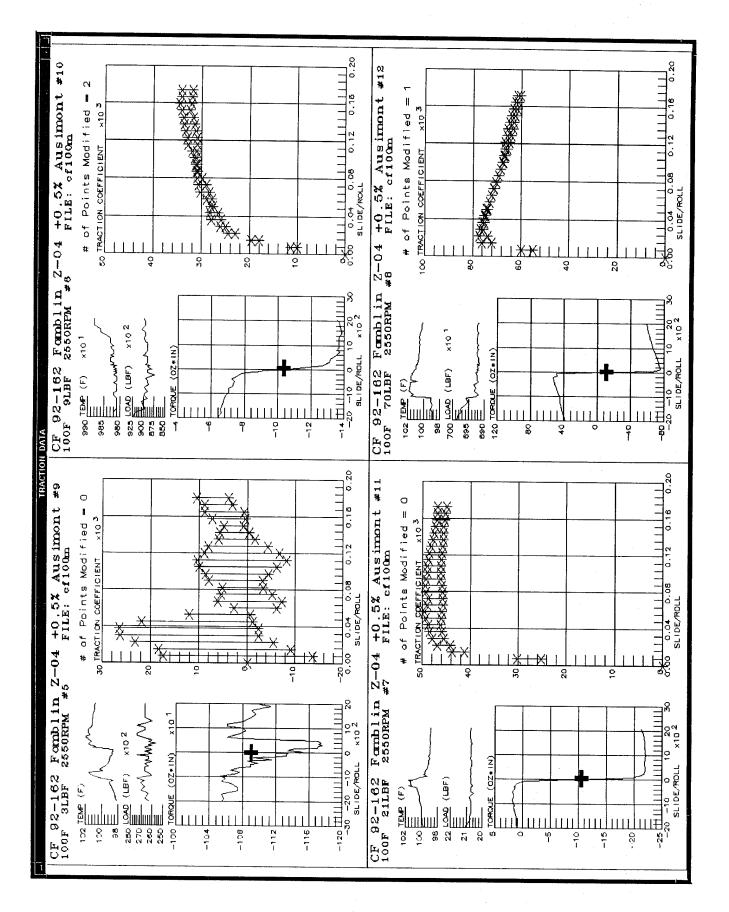
	Temp F	Load lbf	Rpm1	Rpm2	RollRpm	Points	Dataset/Test #
51	250.00	20.45	9135.00	11165,00	10150.00	50	cf250h #3
52	250.00	69.01	9135.00	11165.00	10150.00	50	cf250h #4
53	250.00	2.56	572.00	699.00	635.50	50	cf250m #1
54	250.00	8.63	572.00	699.00	635.50	50	cf250m #2
55	250.00	20.45	572.00	699.00	635.50	50	cf250m #3
56	250.00	69.01	572.00	699.00	635.50	50	cf250m #4
57	250.00	2.56	2295.00	2805.00	2550.00	50	cf250m #5
58	250.00	8.63	2295.00	2805.00	2550.00	50	cf250m #6
59	250.00	20.45	2295.00	2805.00	2550.00	50	cf250m #7
60	250.00	69.01	2295.00	2805.00	2550.00	50	cf250m #8
61	250.00	2.56	4590.00	5610.00	5100.00	50	cf250m #9
62	250.00	8.63	4590.00	5610.00	5100.00	50	cf250m #10
63	250.00	20.45	4590.00	5610.00	5100.00	50	cf250m #11
64	250.00	69.01	4590.00	5610.00	5100.00	50	cf250m #12
65	300.00	2.56	9135.00	11165.00	10150.00	50	cf300h #1
66	300.00	8.63	9135.00	11165.00	10150.00	50	cf300h #2
67	300.00	20.45	9135.00	11165.00	10150.00	50	cf300h #3
68	300.00	69.01	9135.00	11165.00	10150.00	50	cf300h #4
69	300.00	2.56	572.00	699.00	635.50	50	cf300m #1
70	300.00	8.63	572.00	699.00	635.50	50	cf300m #2
71	300.00	20.45	572.00	<b>699.0</b> 0	635.50	50	cf300m #3
72	300.00	69.01	572.00	699.00	635.50	50	cf300m #4
73	300.00	2.56	2295.00	2805.00	2550.00	50	cf300m #5
74	300.00	8.63	2295.00	2805.00	2550.00	50	cf300m #6
75	300.00	20.45	2295.00	2805.00	2550.00	50	cf300m #7
76	300.00	69.01	2295.00	2805.00	2550.00	50	cf300m #8
77	300.00	2.56	4590.00	5610.00	5100.00	50	cf300m #9
78	300.00	8.63	4590.00	5610.00	5100.00	50	cf300m #10
79	300.00	20.45	4590.00	5610.00	5100.00	50	cf300m #11
80	300.00	69.01	4590.00	5610.00	5100.00	50	cf300m #12
81	80.00	2.56	9135.00	11165.00	10150.00	50	cf80h #1
82 83	80.00	8.63	9135.00	11165.00	10150.00	50	cf80h #2
84	80.00	20.45	9135.00	11165.00	10150.00	50	cf80h #3
85	80.00 80.00	69.01	9135.00	11165.00	10150.00	50	cf80h #4
86	80.00	2.56 8.63	572.00 572.00	699.00	635.50	50	cf80m #1
87	80.00	20.45	572.00	699.00 699.00	635.50	50	cf80m #2
88	80.00	69.01	572.00	699.00	635.50 635.50	50 50	cf80m #3
89	80.00	2.56	2295.00	2805.00	2550.00		cf80m #4
90	80.00	8.63	2295.00	2805.00	2550.00	50 50	cf80m #5 cf80m #6
91	80.00	20.45	2295.00	2805.00	2550.00	50 50	cf80m #7
92	80.00	69.01	2295.00	2805.00	2550.00	50	cf80m #8
93	80.00	2.56	4590.00	5610.00	5100.00	50	cf80m #9
94	80.00	8.63	4590.00	5610.00	5100.00	50	cf80m #10
95	80.00	20.45	4590.00	5610.00	5100.00	50	cf80m #11
96							

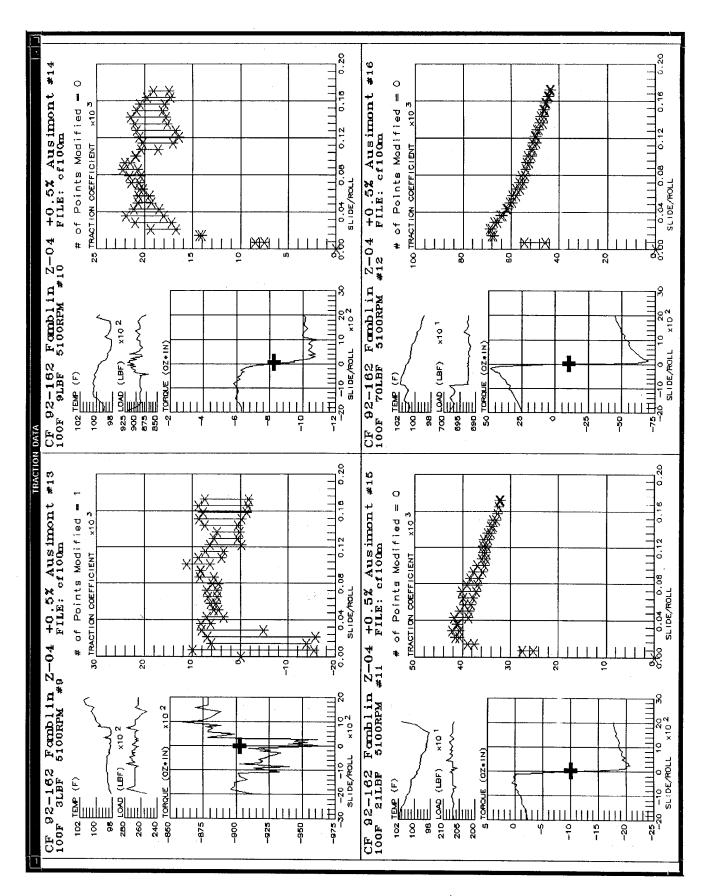
## Summary of Select Data Files

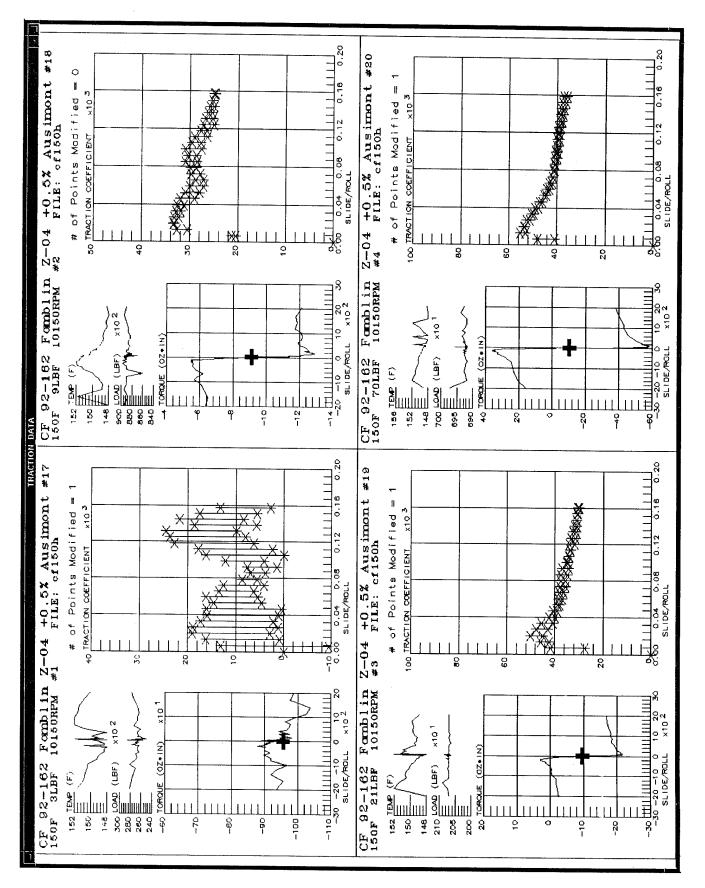
Filename	Temp	RollRpm	Dat	aCur	ve #
cf1.dat	80.00	635.50	86	87	88
cf2.dat	80.00	2550.00	90	91	92
cf3.dat	80.00	5100.00	94	95	96
cf4.dat	80.00	10150.00	82	83	84
cf5.dat	100.00	635.50	6	7	8
cf6.dat	100.00	2550.00	10	11	12
cf7.dat	100.00	5100.00	14	15	16
cf8.dat	100.00	10150.00	2	3	4
cf9.dat	150.00	635.50	22	23	24
cf10.dat	150.00	2550.00	26	27	28
cf11.dat	150.00	5100.00	30	31	32
cf12.dat	150.00	10150.00	18	19	20
cf13.dat	200.00	635.50	38	39	40
cf14.dat	200.00	2550.00	42	43	44
cf15.dat	200.00	5100.00	46	47	48
cf16.dat	200.00	10150.00	34	35	36
cf17.dat	250.00	635.50	54	55	56
cf18.dat	250.00	2550.00	58	59	60
cf19.dat	250.00	5100.00	62	63	64
cf20.dat	250.00	10150.00	50	51	52
cf21.dat	300.00	635.50	70	71	72
cf22.dat	300.00	2550.00	74	75	76
cf23.dat	300.00	5100.00	78	79	80
cf24.dat	300.00	10150.00	66	67	68

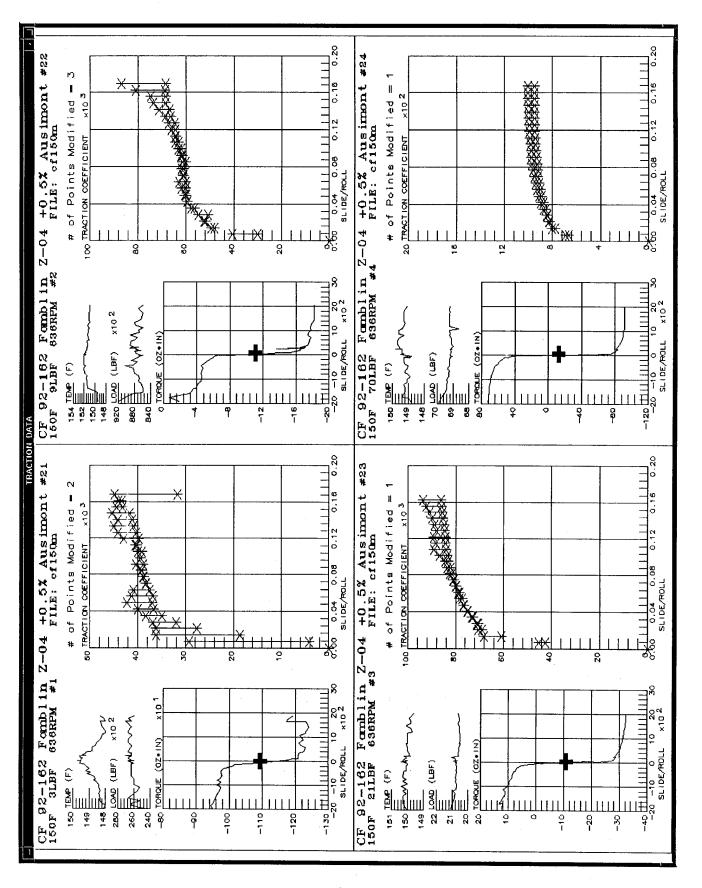


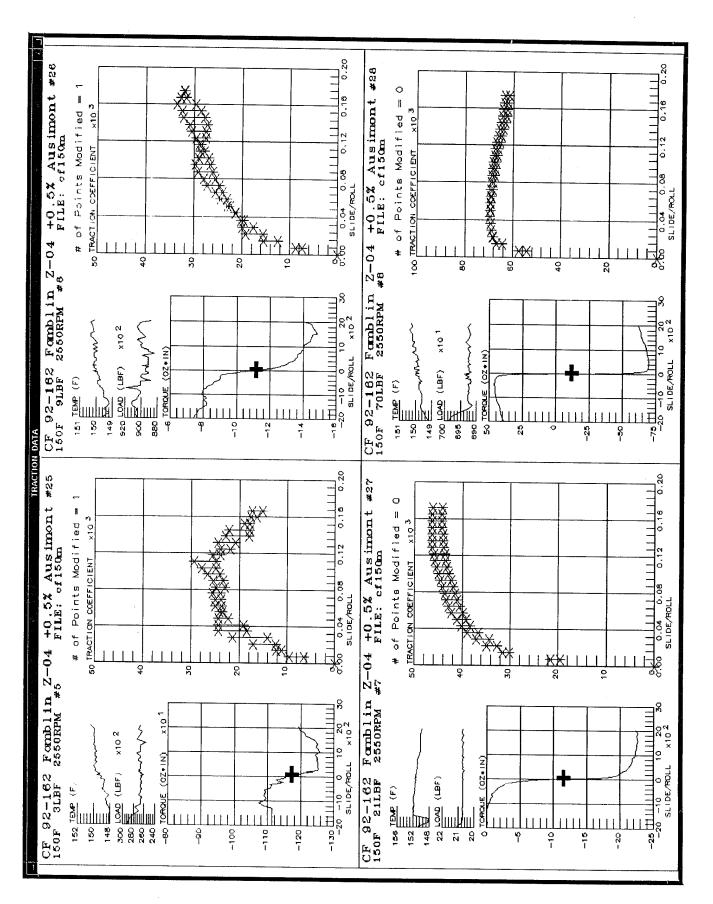


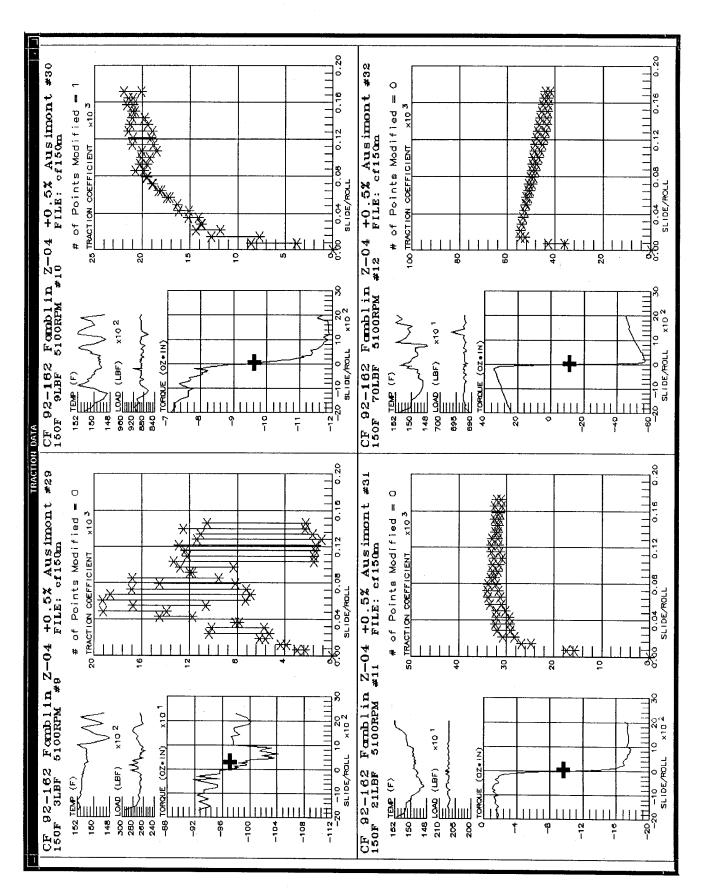


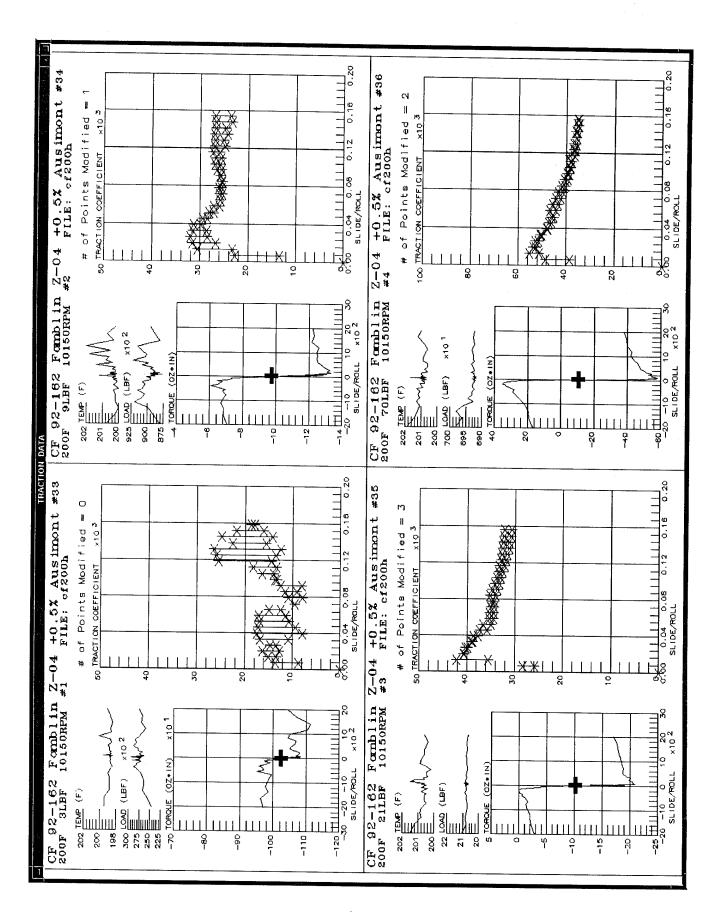


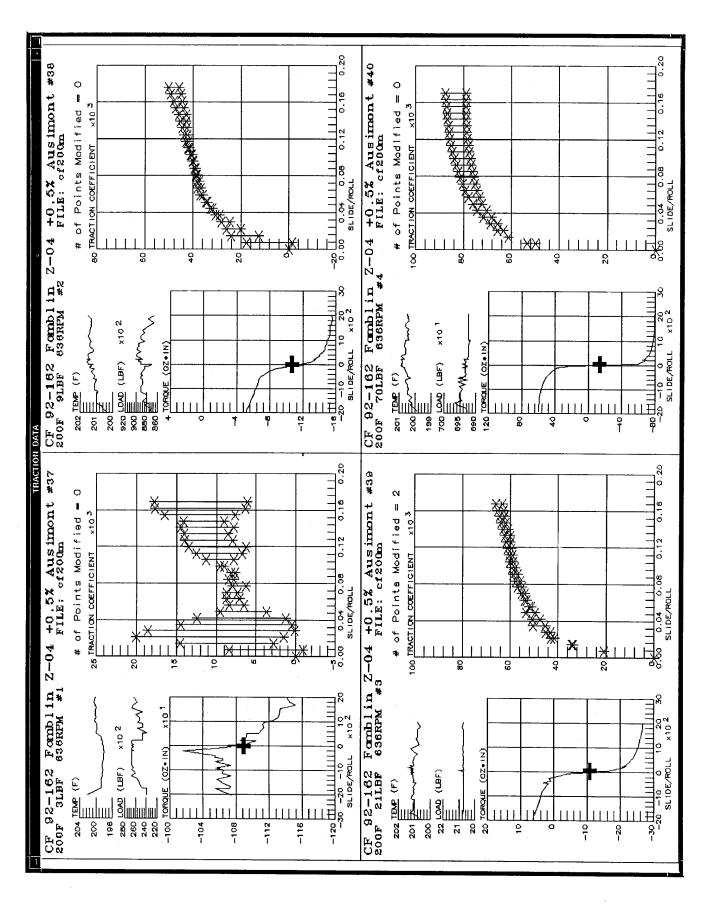


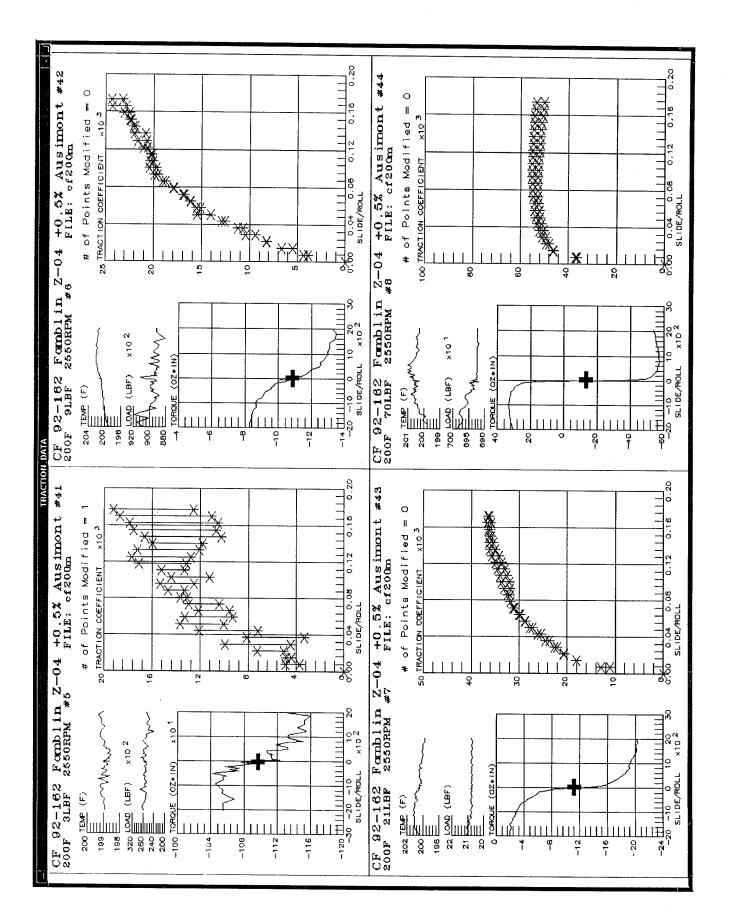


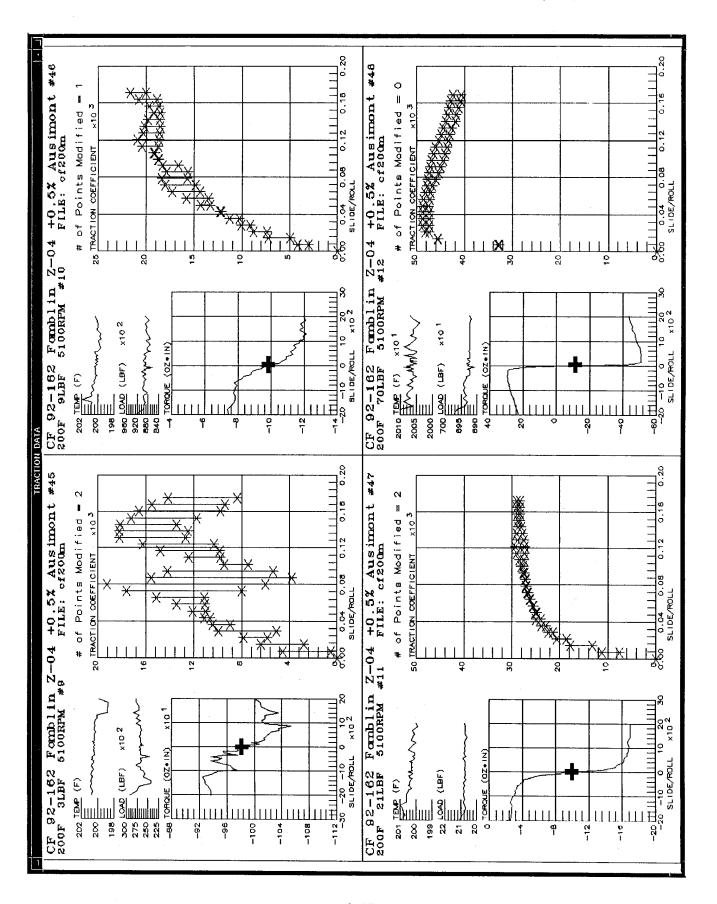


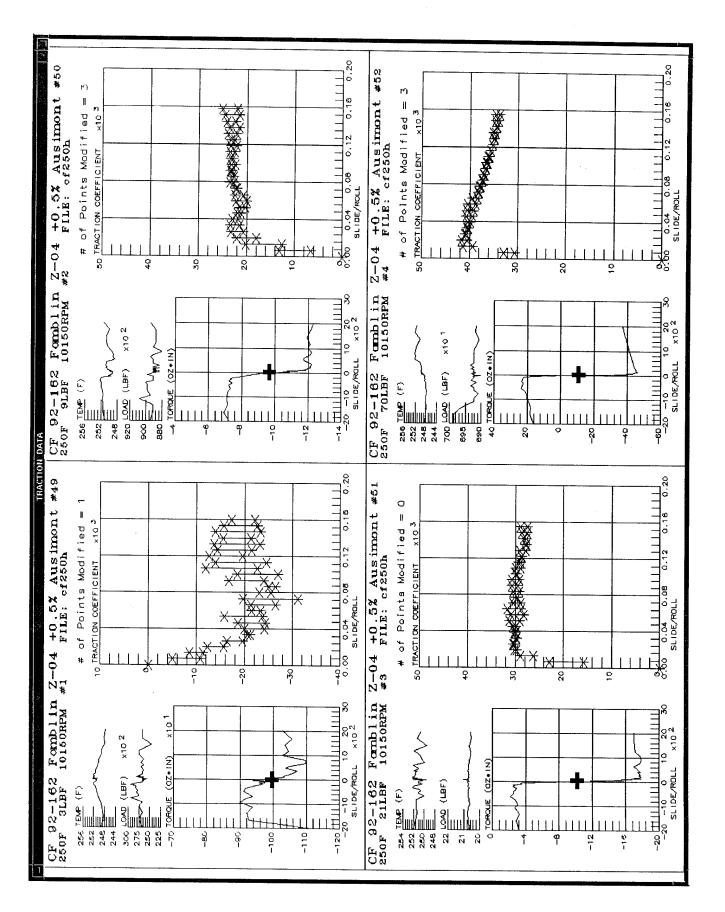


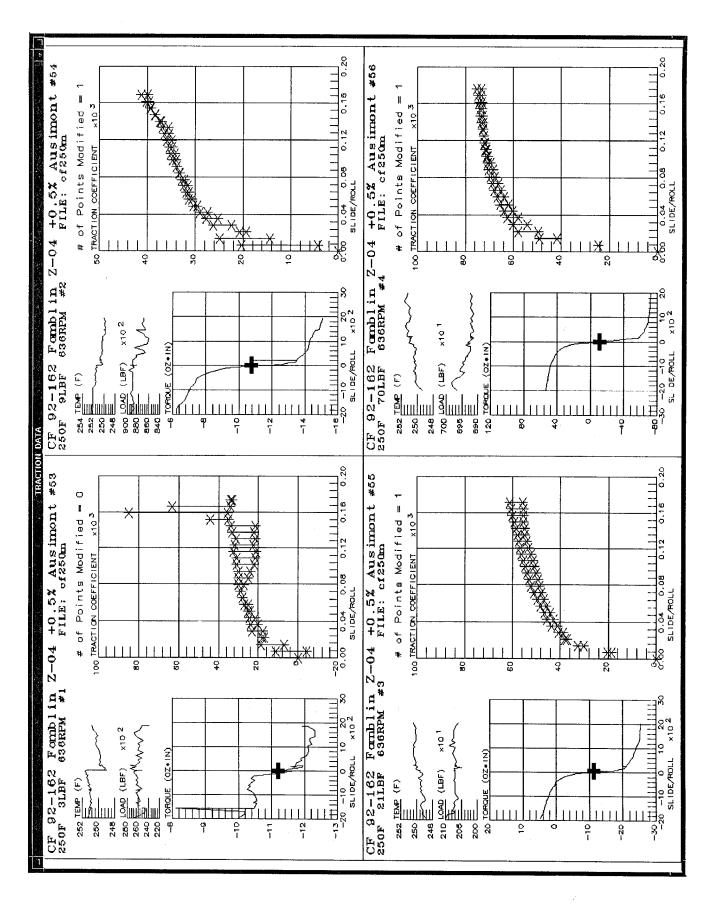


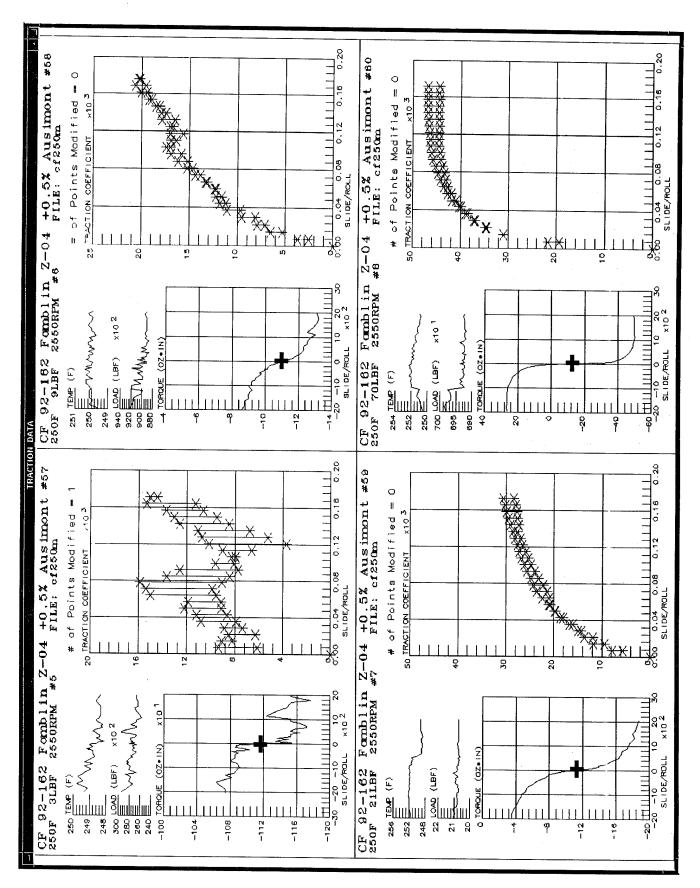


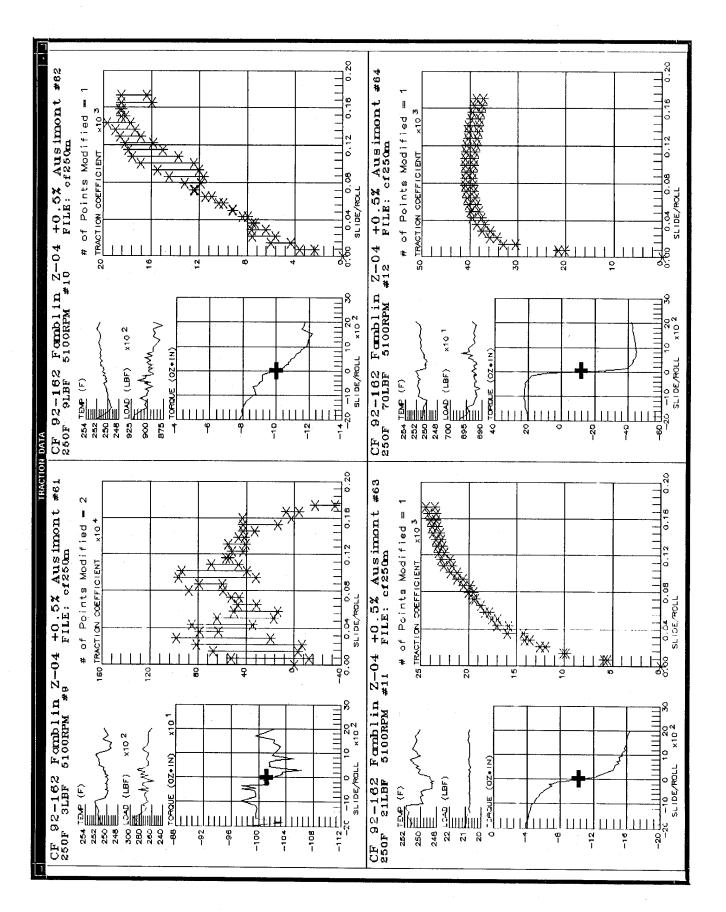


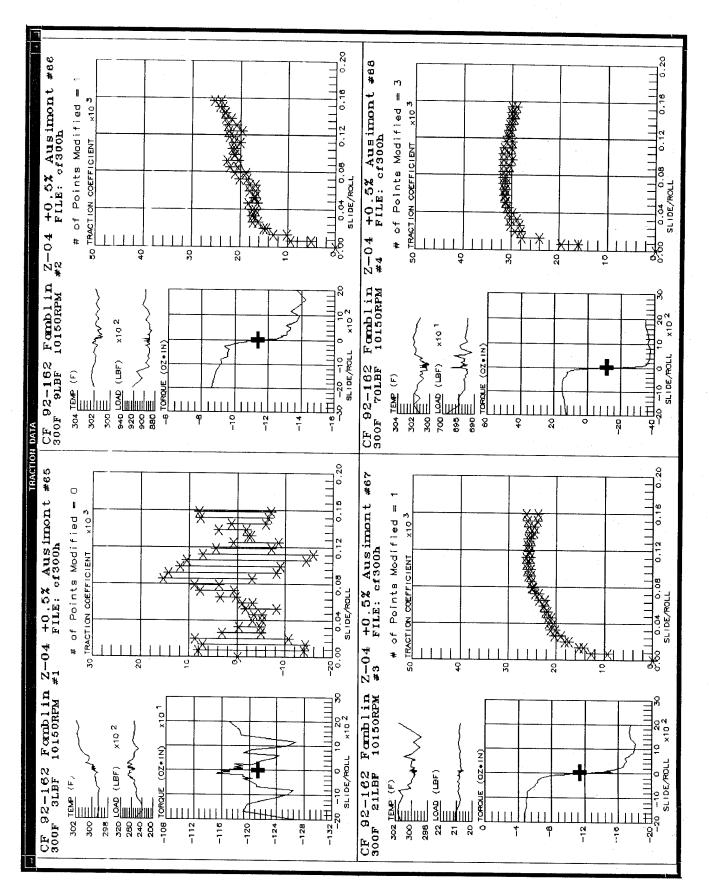


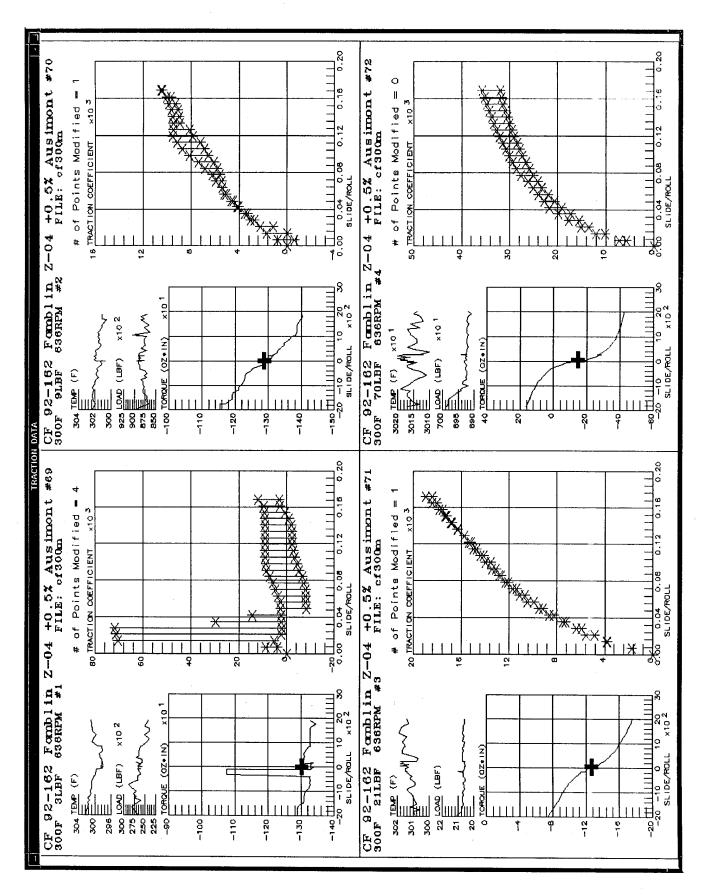


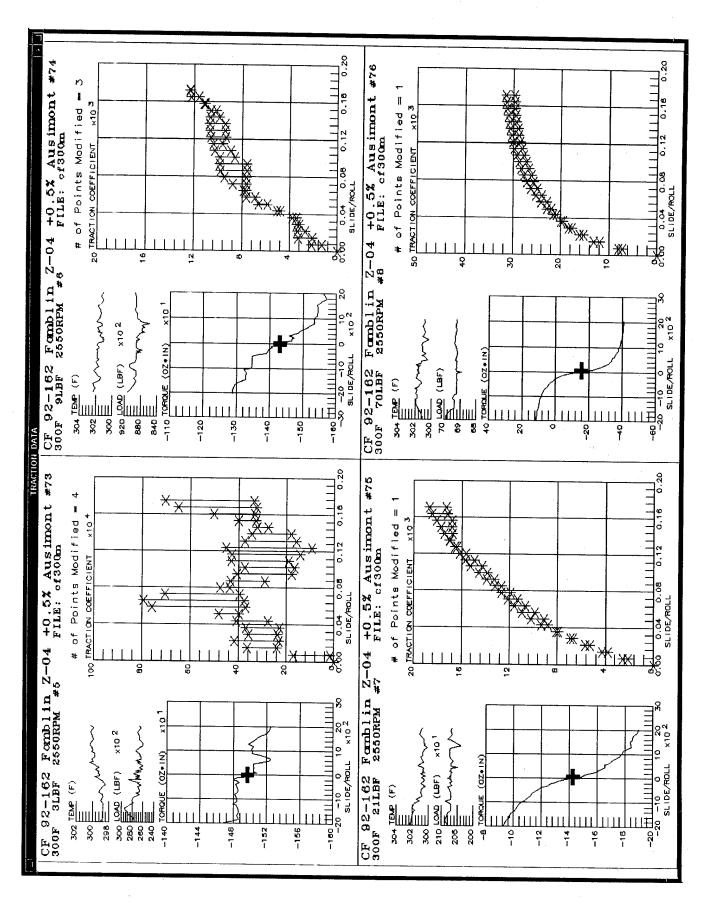


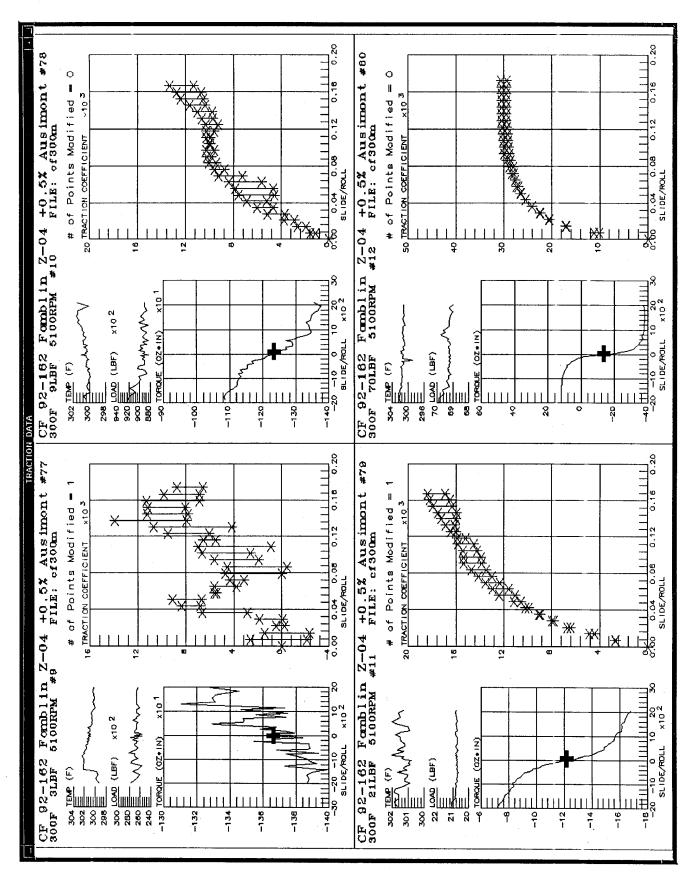


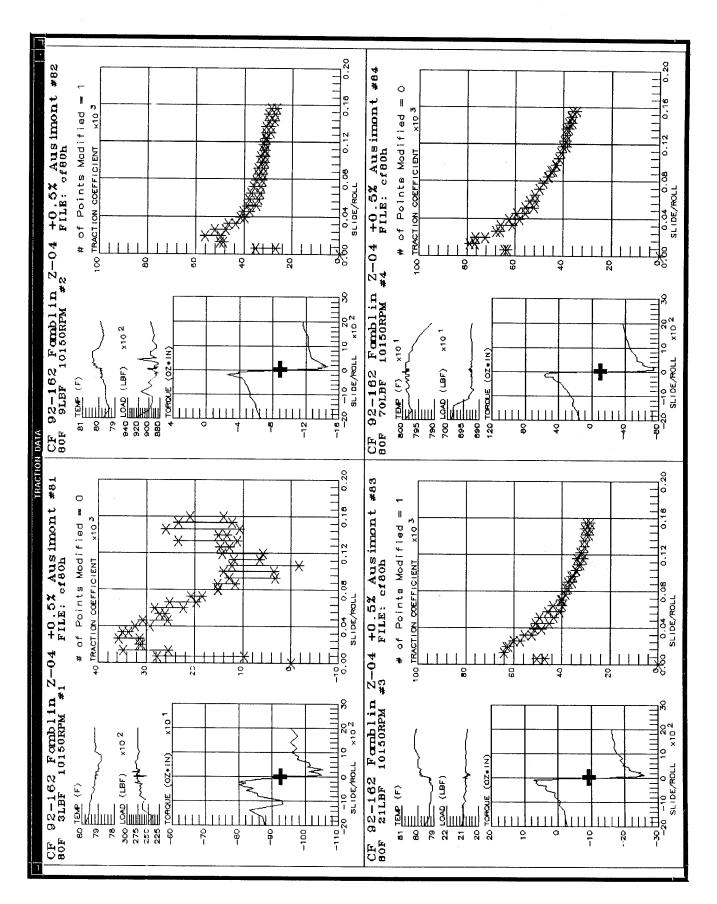


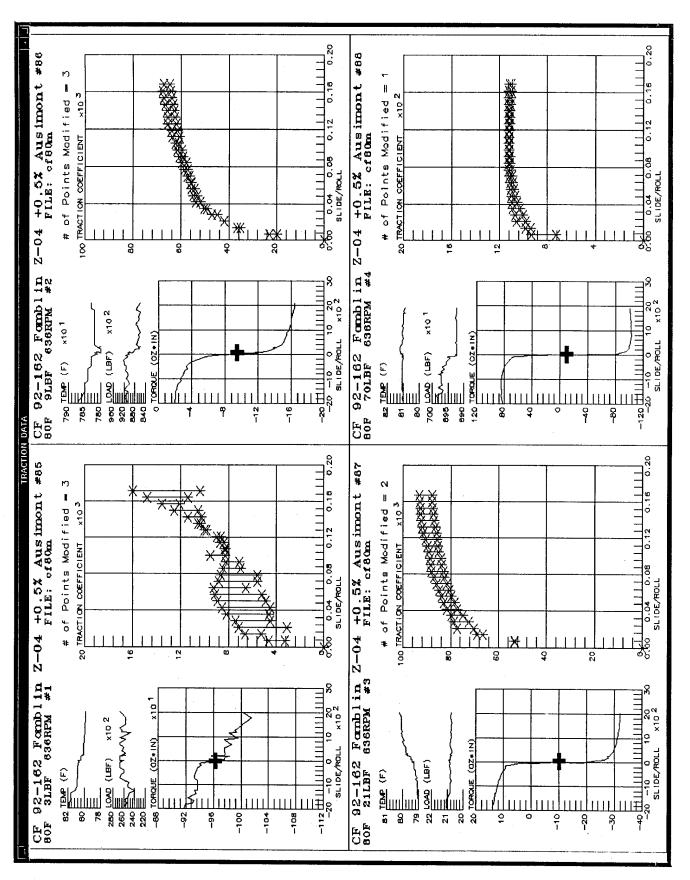


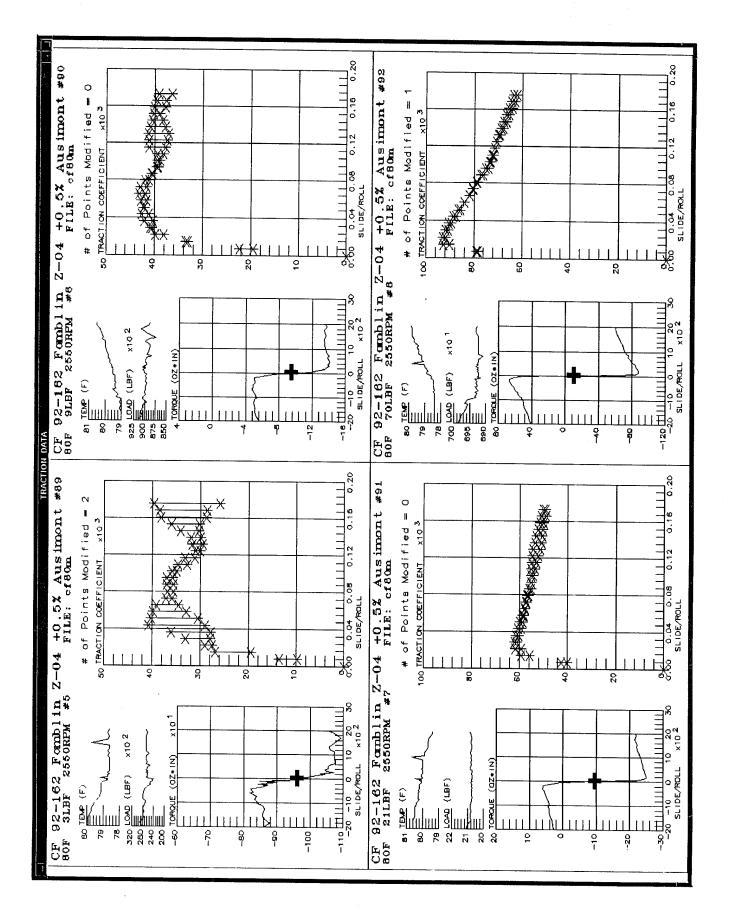


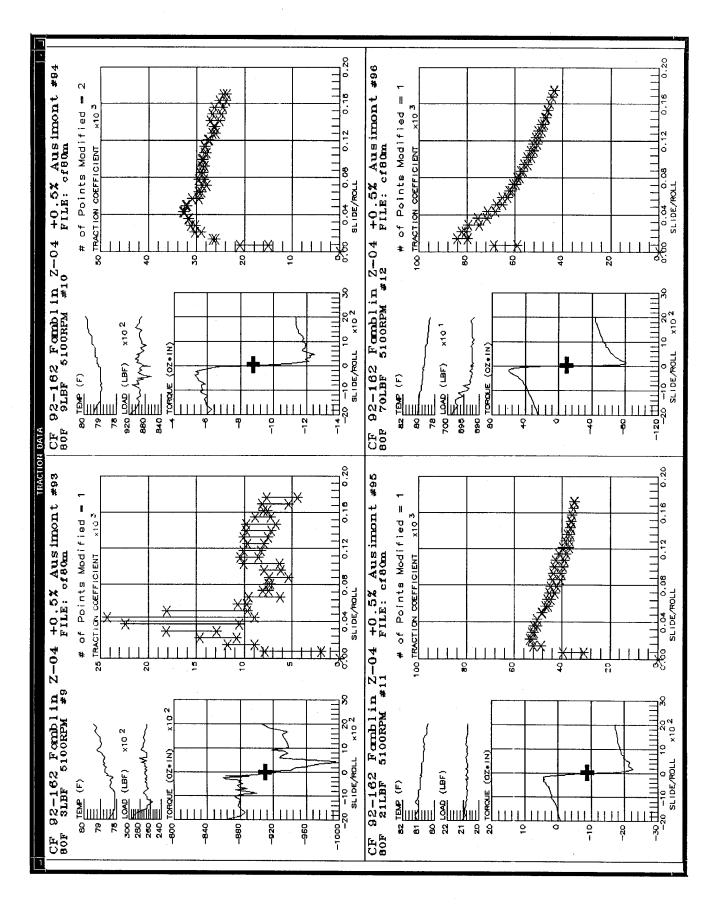


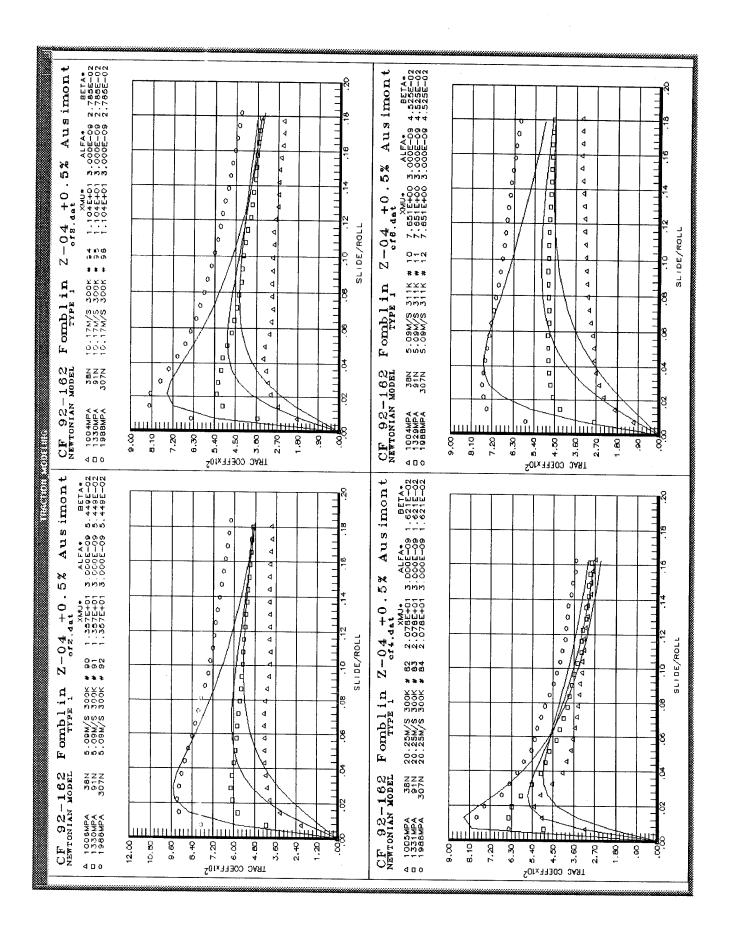


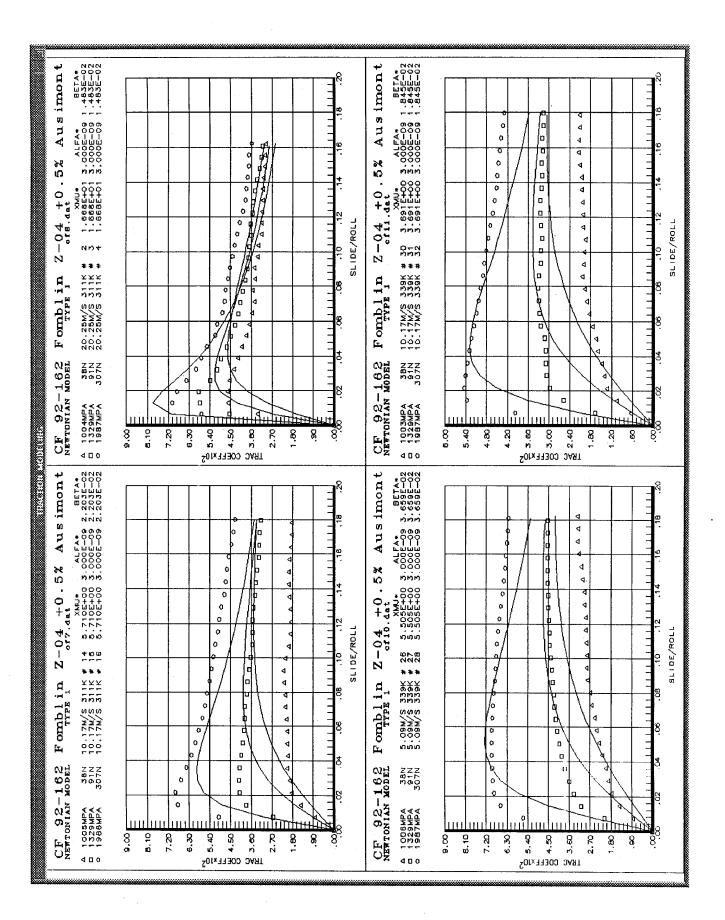


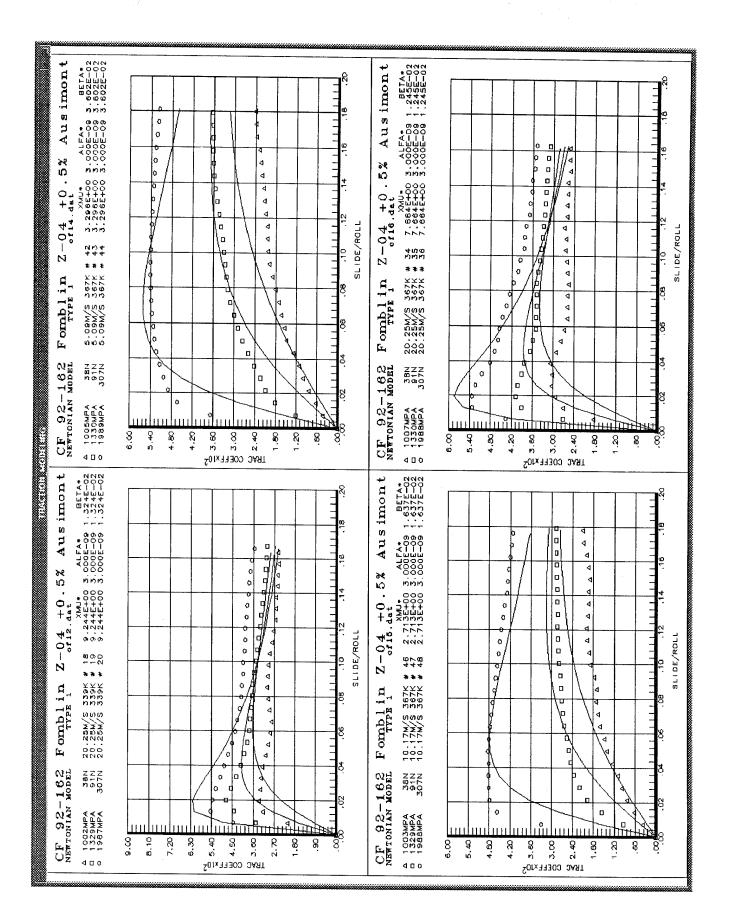


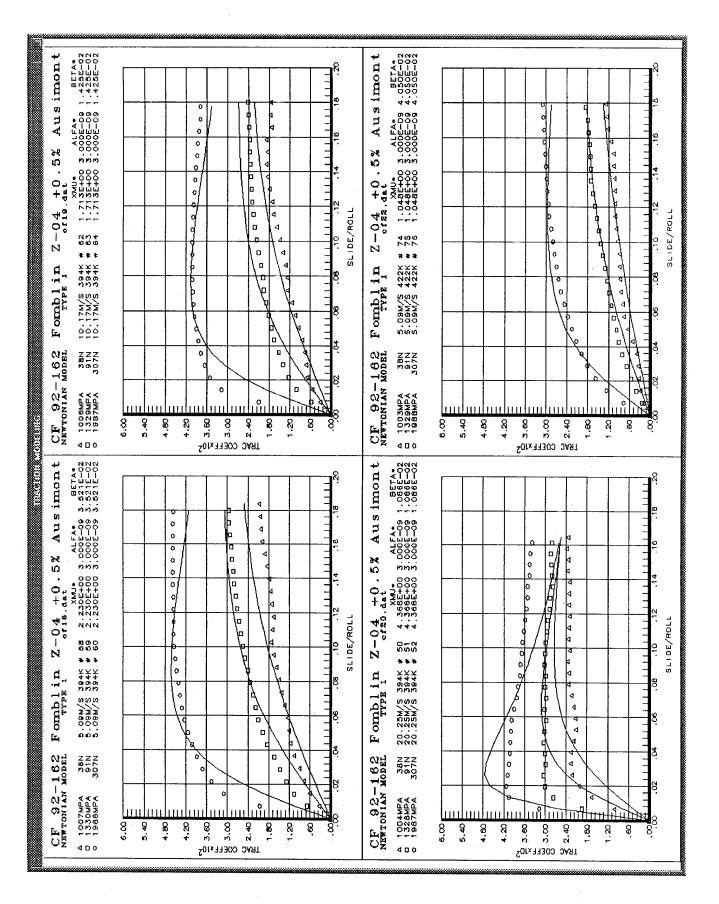


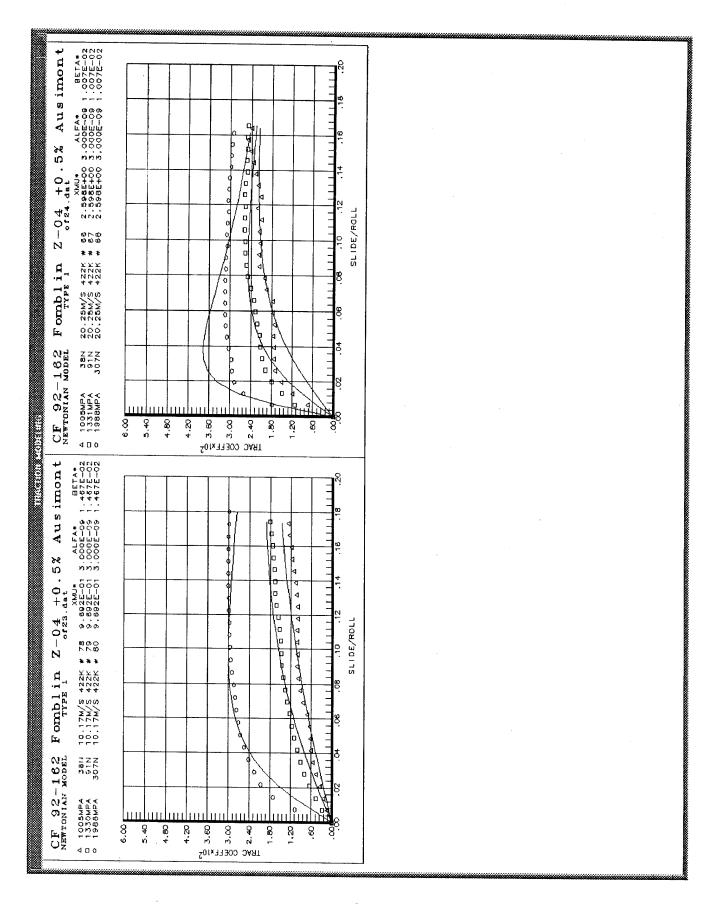












## 7. Traction Data Set F: 89-191 Fomblin Z25 Base

Data set name:
Rolling radii [Disks 1 & 2] (in):
Crown radii [Disks 1 & 2] (in): CH 89-191 Fomblin Z-25 Base Fluid 0.75 0.75

0.80

Number of data sets found = 225

	Temp F	Load lbf	Rpm1	Rpm2	RollRpm	Points	Dataset/Test #
1	100.00	3.03	2295.00	2805.00	2550.00	50	ch100h #1
2	100.00	10.22	2295.00	2805.00	2550.00	50	ch100h #2
3	100.00	24.23	2295.00	2805.00	2550.00	50	ch100h #3
4	100.00	47.31	2295.00	2805.00	2550.00	50	ch100h #4
5	100.00	81.75	2295.00	2805.00	2550.00	50	ch100h #5
6	100.00	3.03	4590.00	5610.00	5100.00	50	ch100h #6
7	100.00	10.22	4590.00	5610.00	5100.00	50	ch100h #7
8	100.00	24.23	4590.00	5610.00	5100.00	50	ch100h #8
9	100.00	47.31	4590.00	5610.00	5100.00	50	ch100h #9
10	100.00	81.75	4590.00	5610.00	5100.00	50	ch100h #10
11	100.00	3.03	9135.00	11165.00	10150.00	50	ch100h #11
12	100.00	10.22	9135.00	11165.00	10150.00	50	ch100h #12
13	100.00	24.23	9135.00	11165.00	10150.00	50	ch100h #13
14	100.00	47.31	9135.00	11165.00	10150.00	50	ch100h #14
15	100.00	81.75	9135.00	11165.00	10150.00	50	ch100h #15
16	100.00	3.03	137.00	167.00	152.00	24	ch100m #1
17	100.00	10.22	137.00	167.00	152.00	24	ch100m #2
18	100.00	24.23	137.00	167.00	152.00	24	ch100m #3
19	100.00	47.31	137.00	167.00	152.00	24	ch100m #4
20	100.00	81.75	137.00	167.00	152.00	24	ch100m #5
21	100.00	3.03	280.00	340.00	310.00	24	ch100m #6
22	100.00	10.22	280.00	340.00	310.00	24	ch100m #7
23	100.00	24.23	280.00	340.00	310.00	24	ch100m #8
24 25	100.00	47.31	280.00	340.00	310.00	24	ch100m #9
26	100.00 100.00	81.75 3.03	280.00	340.00	310.00	24	ch100m #10
27	100.00	10.22	572.00 572.00	699.00	635.50	24	ch100m #11
28	100.00	24.23	572.00	699.00 699.00	635.50 635.50	24 24	ch100m #12 ch100m #13
29	100.00	47.31	572.00	699.00	635.50	24	ch100m #14
30	100.00	81.75	572.00	699.00	635.50	24	ch100m #15
31	100.00	3.03	1143.00	1397.00	1270.00	24	ch100m #15
32	100.00	10.22	1143.00	1397.00	1270.00	24	ch100m #17
33	100.00	24.23	1143.00	1397.00	1270.00	24	ch100m #18
34	100.00	47.31	1143.00	1397.00	1270.00	24	ch100m #19
35	100.00	81.75	1143.00	1397.00	1270.00	24	ch100m #20
36	150.00	3.03	2295.00	2805.00	2550.00	50	ch150h #1
37	150.00	10.22	2295.00	2805.00	2550.00	50	ch150h #2
38	150.00	24.23	2295.00	2805.00	2550.00	50	ch150h #3
39	150.00	47.31	2295.00	2805.00	2550.00	50	ch150h #4
40	150.00	81.75	2295.00	2805.00	2550.00	50	ch150h #5
41	150.00	3.03	4590.00	5610.00	5100.00	- 50	ch150h #6
42	150.00	10.22	4590.00	5610.00	5100.00	50	ch150h #7
43	150.00	24.23	4590.00	5610.00	5100.00	50	ch150h #8
44	150.00	47.31	4590.00	5610.00	5100.00	50	ch150h #9
45	150.00	81.75	4590.00	5610.00	5100.00	50	ch150h #10
46	150.00	3.03	9135.00	11165.00	10150.00	50	ch150h #11
47 48	150.00 150.00	10.22 24.23	9135.00	11165.00	10150.00	50	ch150h #12
49	150.00	47.31	9135.00	11165.00	10150.00	50	ch150h #13
50	150.00	81.75	9135.00	11165.00	10150.00	50	ch150h #14
<b>J</b> U	150.00	01.73	9135.00	11165.00	10150.00	50	ch150h #15

Data set: Сн 89-191 Fomblin Z-25 Base Fluid ....continued

	Temp F	Load lbf	Rpm1	Rpm2	RollRpm	Points	Dataset/Test #
51	150.00	3.03	137.00	167.00	152.00	24	ch150m #1
52 53	150.00 150.00	10.22 24.23	137.00	167.00	152.00	24	ch150m #2
54	150.00	47.31	137.00 137.00	167.00 167.00	152.00 152.00	24 24	ch150m #3
55	150.00	81.75	137.00	167.00	152.00	24	ch150m #4 ch150m #5
56	150.00	3.03	280.00	340.00	310.00	24	ch150m #6
57	150.00	10.22	280.00	340.00	310.00	24	ch150m #7
58 59	150.00	24.23	280.00	340.00	310.00	24	ch150m #8
60	150.00 150.00	47.31 81.75	280.00 280.00	340.00 340.00	310.00	24	ch150m #9
61	150.00	3.03	572.00	699.00	310.00 635.50	24 24	ch150m #10 ch150m #11
62	150.00	10.22	572.00	699.00	635.50	24	ch150m #12
63	150.00	24.23	572.00	699.00	635.50	24	ch150m #13
64	150.00	47.31	572.00	699.00	635.50	24	ch150m #14
65	150.00	81.75	572.00	699.00	635.50	24	ch150m #15
66 67	150.00 150.00	3.03 10.22	1143.00 1143.00	1397.00	1270.00	24	ch150m #16
68	150.00	24.23	1143.00	1397.00 1397.00	1270.00 1270.00	24 24	ch150m #17
69	150.00	47.31	1143.00	1397.00	1270.00	24	ch150m #18 ch150m #19
70	150.00	81.75	1143.00	1397.00	1270.00	24	ch150m #20
71	200.00	3.03	2295.00	2805.00	2550.00	50	ch200h #1
72	200.00	10.22	2295.00	2805.00	2550.00	50	ch200h #2
73 74	200.00 200.00	24.23 47.31	2295.00 2295.00	2805.00 2805.00	2550.00 2550.00	50	ch200h #3
75	200.00	81.75	2295.00	2805.00	2550.00	50 50	ch200h #4 ch200h #5
76	200.00	3.03	4590.00	5610.00	5100.00	50	ch200h #6
77	200.00	10.22	4590.00	5610.00	5100.00	50	ch200h #7
78 79	200.00 200.00	24.23 47.31	4590.00	5610.00	5100.00	50	ch200h #8
80	200.00	81.75	4590.00 4590.00	5610.00 5610.00	5100.00 5100.00	50 50	ch200h #9 ch200h #10
81	200.00	3.03	9135.00	11165.00	10150.00	50	ch200h #10
82	200.00	10.22	9135.00	11165.00	10150.00	50	ch200h #12
83	200.00	24.23	9135.00	11165.00	10150.00	50	ch200h #13
84 85	200.00 200.00	47.31 81.75	9135.00	11165.00	10150.00	50	ch200h #14
86	200.00	3.03	9135.00 137.00	11165.00 167.00	10150.00 152.00	50 24	ch200h #15 ch200m #1
87	200.00	10.22	137.00	167.00	152.00	24	ch200m #2
88	200.00	24.23	137.00	167.00	152.00	24	ch200m #3
89	200.00	47.31	137.00	167.00	152.00	24	ch200m #4
90 91	200.00 200.00	81.75 3.03	137.00 280.00	167.00 340.00	152.00 310.00	24	ch200m #5
92	200.00	10.22	280.00	340.00	310.00	24 24	ch200m #6 ch200m #7
93	200.00	24.23	280.00	340.00	310.00	24	ch200m #8
94	200.00	47.31	280.00	340.00	310.00	24	ch200m #9
95 96	200.00 200.00	81.75 3.03	280.00	340.00	310.00	24	ch200m #10
97	200.00	10.22	572.00 572.00	699.00 699.00	635.50 635.50	24 24	ch200m #11
98	200.00	24.23	572.00	699.00	635.50	24	ch200m #12 ch200m #13
99	200.00	47.31	572.00	699.00	635.50	24	ch200m #14
100	200.00	81.75	572.00	699.00	635.50	24	ch200m #15
101 102	200.00 200.00	3.03 10.22	1143.00 1143.00	1397.00	1270.00	24	ch200m #16
103	200.00	24.23	1143.00	1397.00 1397.00	1270.00 1270.00	24 24	ch200m #17 ch200m #18
104	200.00	47.31	1143.00	1397.00	1270.00	24	ch200m #19
105	200.00	81.75	1143.00	1397.00	1270.00	24	ch200m #20
106 107	250.00 250.00	3.03	2295.00	2805.00	2550.00	50	ch250h #1
108	250.00	10.22 24.23	2295.00 2295.00	2805.00 2805.00	2550.00 2550.00	50 50	ch250h #2
109	250.00	47.31	2295.00	2805.00	2550.00	50	ch250h #3 ch250h #4
110	250.00	81.75	2295.00	2805.00	2550.00	50	ch250h #5
111	250.00	3.03	4590.00	5610.00	5100.00	50	ch250h #6
112 113	250.00 250.00	10.22 24.23	4590.00 4590.00	5610.00 5610.00	5100.00	50 50	ch250h #7
114	250.00	47.31	4590.00	5610.00	5100.00 5100.00	50 50	ch250h #8 ch250h #9
115	250.00	81.75	4590.00	5610.00	5100.00	50	ch250h #10
116	250.00	3.03	9135.00	11165.00	10150.00	50	ch250h #11
117	250.00	10.22	9135.00	11165.00	10150.00	50	ch250h #12
118 119	250.00 250.00	24.23 47.31	9135.00 9135.00	11165.00 11165.00	10150.00	50 50	ch250h #13
120	250.00	81.75	9135.00	11165.00	10150.00 10150.00	50 50	ch250h #14 ch250h #15
			**				

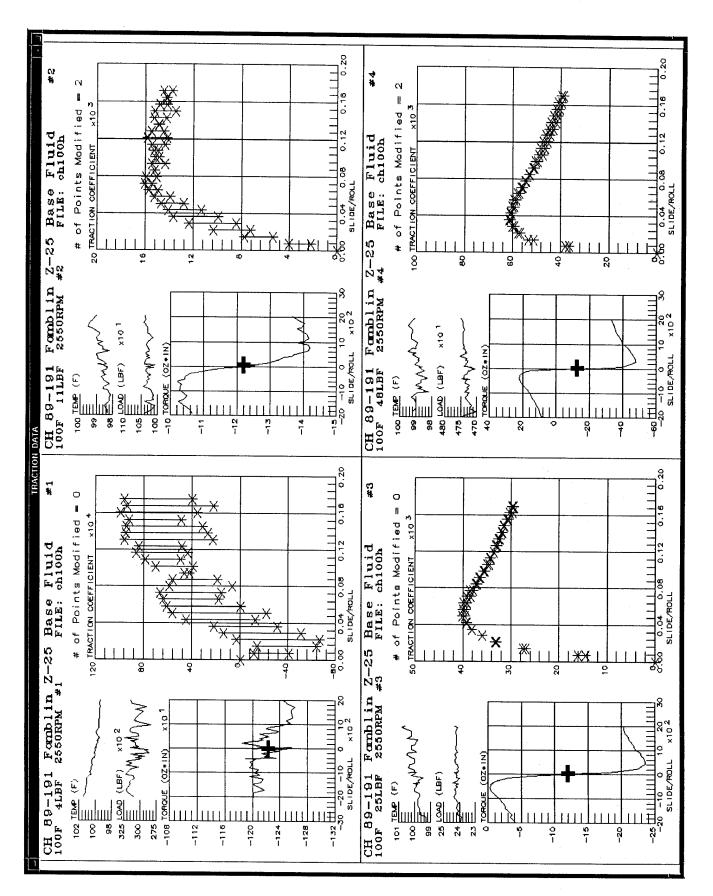
Data set: CH 89-191 Fomblin Z-25 Base Fluid ....continued

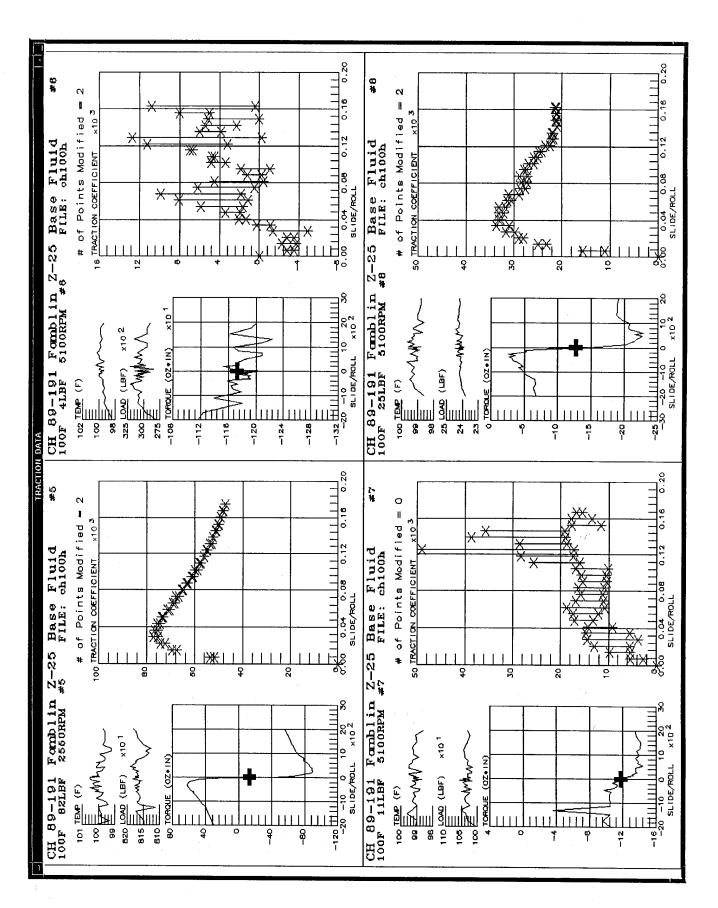
	Temp F	Load lbf	Rpm1	Rpm2	RollRpm	Points	Dataset/Test #
121	250.00	3.03	137.00	167.00	152.00	24	ch250m #1
122	250.00	10.22	137.00	167.00	152.00	24	ch250m #2
123	250.00	24.23	137.00	167.00	152.00	24	ch250m #3
124	250.00	47.31	137.00	167.00	152.00	24	ch250m #4
125	250.00	81.75	137.00	167.00	152.00	24	ch250m #5
126	250.00	3.03	280.00	340.00	310.00	24	ch250m #6
127	250.00	10.22	280.00	340.00	310.00	24	ch250m #7
128 129	250.00 250.00	24.23 47.31	280.00 280.00	340.00 340.00	310.00 310.00	24 24	ch250m #8 ch250m #9
130	250.00	81.75	280.00	340.00	310.00	24	ch250m #10
131	250.00	3.03	572.00	699.00	635.50	24	ch250m #11
132	250.00	10.22	572.00	699.00	635.50	24	ch250m #12
133	250.00	24.23	572.00	699.00	635.50	24	ch250m #13
134	250.00	47.31	572.00	699.00	635.50	24	ch250m #14
135	250.00	81.75	572.00	699.00	635.50	24	ch250m #15
136 137	250.00 250.00	3.03 10.22	1143.00 1143.00	1397.00 1397.00	1270.00 1270.00	24 24	ch250m #16 ch250m #17
138	250.00	24.23	1143.00	1397.00	1270.00	24	ch250m #17
139	250.00	47.31	1143.00	1397.00	1270.00	24	ch250m #19
140	250.00	81.75	1143.00	1397.00	1270.00	24	ch250m #20
141	300.00	3.03	2346.00	2754.00	2550.00	50	ch300h #1
142	300.00	10.22	2346.00	2754.00	2550.00	50	ch300h #2
143	300.00	24.23	2346.00	2754.00	2550.00	50	ch300h #3
144 145	300.00 300.00	47.31 81.75	2346.00 2346.00	2754.00 2754.00	2550.00 2550.00	50 50	ch300h #4 ch300h #5
146	300.00	3.03	4896.00	5304.00	5100.00	50	ch300h #6
147	300.00	10.22	4896.00	5304.00	5100.00	50	ch300h #7
148	300.00	24.23	4896.00	5304.00	5100.00	50	ch300h #8
149	300.00	47.31	4896.00	5304.00	5100.00	50	ch300h #9
150	300.00	81.75	4896.00	5304.00	5100.00	50	ch300h #10
151	300.00	3.03	9947.00	10353.00	10150.00	50	ch300h #11
152 153	300.00 300.00	10.22 24.23	9947.00 9947.00	10353.00 10353.00	10150.00 10150.00	50 50	ch300h #12 ch300h #13
154	300.00	47.31	9947.00	10353.00	10150.00	50	ch300h #15
155	300.00	81.75	9947.00	10353.00	10150.00	50	ch300h #15
156	300.00	3.03	2295.00	2805.00	2550.00	50	ch300hx #1
157	300.00	10.22	2295.00	2805.00	2550.00	50	ch300hx #2
158	300.00	24.23	2295.00	2805.00	2550.00	50	ch300hx #3
159 160	300.00 300.00	47.31 81.75	2295.00 2295.00	2805.00 2805.00	2550.00 2550.00	50 50	ch300hx #4 ch300hx #5
161	300.00	3.03	4590.00	5610.00	5100.00	50	ch300hx #6
162	300.00	10.22	4590.00	5610.00	5100.00	50	ch300hx #7
163	300.00	24.23	4590.00	5610.00	5100.00	50	ch300hx #8
164	300.00	47.31	4590.00	5610.00	5100.00	50	ch300hx #9
165 166	300.00 300.00	81.75	4590.00	5610.00	5100.00	50	ch300hx #10
167	300.00	3.03 10.22	9135.00 9135.00	11165.00 11165.00	10150.00 10150.00	50 50	ch300hx #11 ch300hx #12
168	300.00	24.23	9135.00	11165.00	10150.00	50	ch300hx #13
169	300.00	47.31	9135.00	11165.00	10150.00	50	ch300hx #14
170	300.00	81.75	9135.00	11165.00	10150.00	50	ch300hx #15
171	300.00	3.03	137.00	167.00	152.00	24	ch300m #1
172 173	300.00 300.00	10.22 24.23	137.00 137.00	167.00 167.00	152.00	24	ch300m #2
174	300.00	47.31	137.00	167.00	152.00 152.00	24 24	ch300m #3 ch300m #4
175	300.00	81.75	137.00	167.00	152.00	24	ch300m #5
176	300.00	3.03	280.00	340.00	310.00	24	ch300m #6
177	300.00	10.22	280.00	340.00	310.00	24	ch300m #7
178	300.00	24.23	280.00	340.00	310.00	24	ch300m #8
179 180	300.00 300.00	47.31 81.75	280.00 280.00	340.00 340.00	310.00 310.00	24	ch300m #9
181	300.00	3.03	572.00	699.00	635.50	24 24	ch300m #10 ch300m #11
182	300.00	10.22	572.00	699.00	635.50	24	ch300m #11
183	300.00	24.23	572.00	699.00	635.50	24	ch300m #13
184	300.00	47.31	572.00	699.00	635.50	24	ch300m #14
185 186	300.00	81.75	572.00	699.00	635.50	24	ch300m #15
187	300.00 300.00	3.03 10.22	1143.00 1143.00	1397.00 1397.00	1270.00 1270.00	24 24	ch300m #16 ch300m #17
188	300.00	24.23	1143.00	1397.00	1270.00	24 24	ch300m #17
189	300.00	47.31	1143.00	1397.00	1270.00	24	ch300m #19
190	300.00	81.75	1143.00	1397.00	1270.00	24	ch300m #20

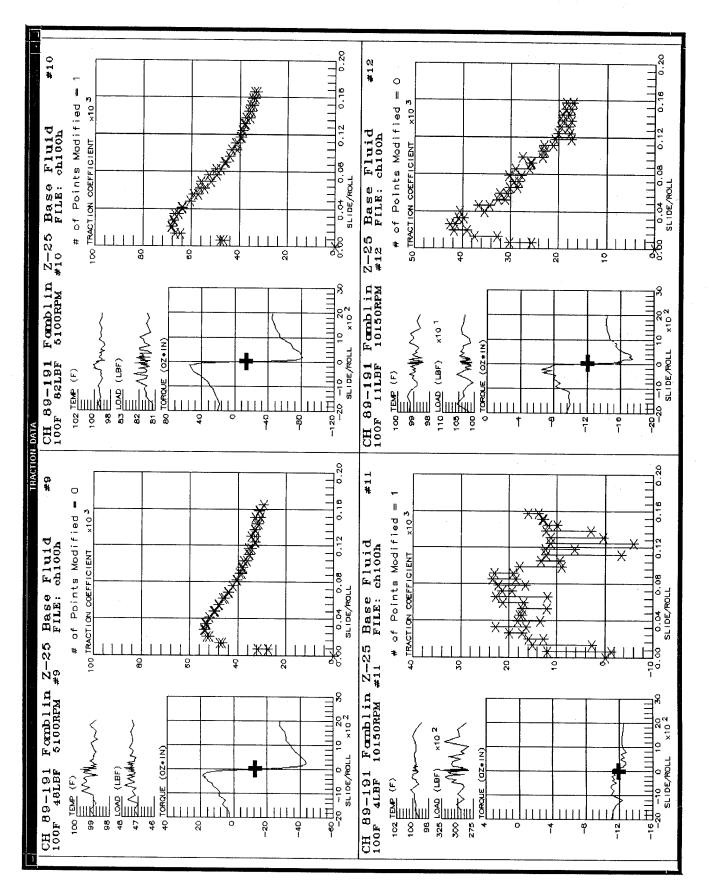
Data set: CH 89-191 Fomblin Z-25 Base Fluid ....continued

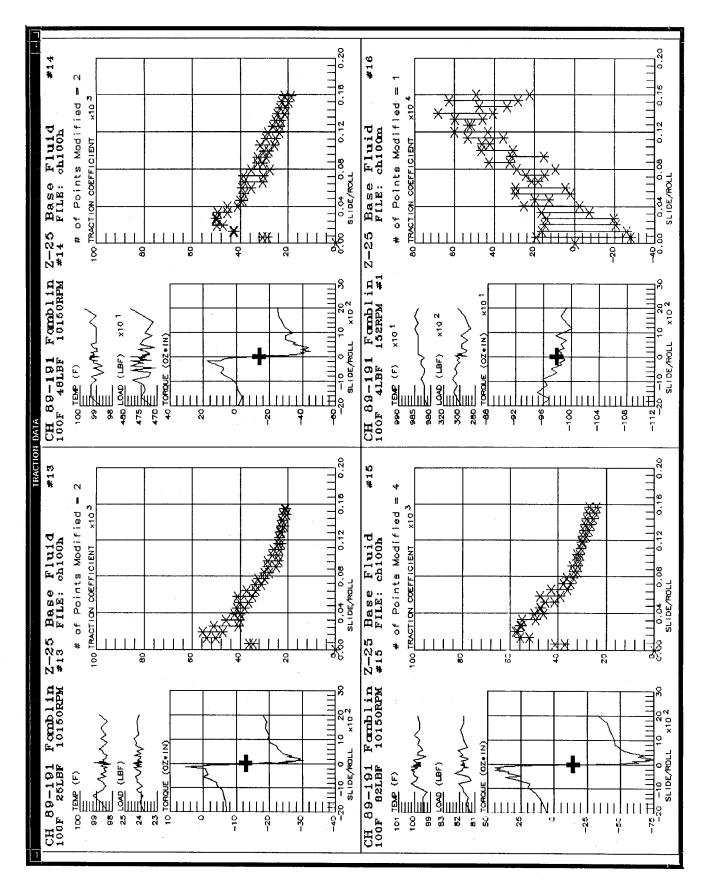
	Temp F	Load lbf	Rpm1	Rpm2	RollRpm	Points	Dataset/Test #
191	80.00	3.03	2295.00	2805.00	2550.00	50	ch80h #1
192	80.00	10.22	2295.00	2805.00	2550.00	50	ch80h #2
193	80.00	24.23	2295.00	2805.00	2550.00	50	ch80h #3
194	80.00	47.31	2295.00	2805.00	2550.00	50	ch80h #4
195	80.00	81.75	2295.00	2805.00	2550.00	50	ch80h #5
196	80.00	3.03	4590.00	5610.00	5100.00	50	ch80h #6
197	80.00	10.22	4590.00	5610.00	5100.00	50	ch80h #7
198	80.00	24.23	4590.00	5610.00	5100.00	50	ch80h #8
199	80.00	47.31	4590.00	5610.00	5100.00	50	ch80h #9
200	80.00	81.75	4590.00	5610.00	5100.00	50	ch80h #10
201	80.00	3.03	9135.00	11165.00	10150.00	50	ch80h #11
202	80.00	10.22	9135.00	11165.00	10150.00	50	ch80h #12
203	80.00	24.23	9135.00	11165.00	10150.00	50	ch80h #13
204	80.00	47.31	9135.00	11165.00	10150.00	50	ch80h #14
205	80.00	81.75	9135.00	11165.00	10150.00	50	ch80h #15
206	80.00	3.03	137.00	167.00	152.00	24	ch80m #1
207	80.00	10.22	137.00	167.00	152.00	24	ch80m #2
208	80.00	24.23	137.00	167.00	152.00	24	ch80m #3
209	80.00	47.31	137.00	167.00	152.00	24	ch80m #4
210	80.00	81.75	137.00	167.00	152.00	24	ch80m #5
211	80.00	3.03	280.00	340.00	310.00	24	ch80m #6
212	80.00	10.22	280.00	340.00	310.00	24	ch80m #7
213	80.00	24.23	280.00	340.00	310.00	24	ch80m #8
214	80.00	47.31	280.00	340.00	310.00	24	ch80m #9
215	80.00	81.75	280.00	340.00	310.00	24	ch80m #10
216	80.00	3.03	572.00	699.00	635.50	24	ch80m #11
217	80.00	10.22	572.00	699.00	635.50	24	ch80m #12
218	80.00	24.23	572.00	699.00	635.50	24	ch80m #13
219	80.00	47.31	572.00	699.00	635.50	24	ch80m #14
220	80.00	81.75	572.00	699.00	635.50	24	ch80m #15
221	80.00	3.03	1143.00	1397.00	1270.00	24	ch80m #16
222	80.00	10.22	1143.00	1397.00	1270.00	24	ch80m #17
223	80.00	24.23	1143.00	1397.00	1270.00	24	ch80m #18
224	80.00	47.31	1143.00	1397.00	1270.00	24	ch80m #19
225	80.00	81.75	1143.00	1397.00	1270.00	24	ch80m #20

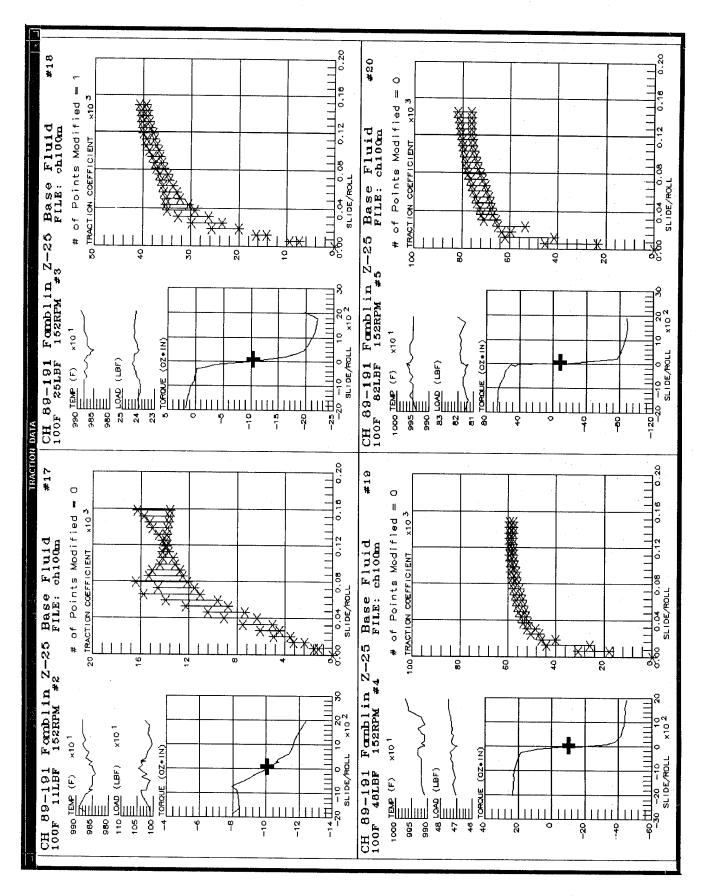
Filename	Temp	RollRpm	DataCurve #			¥
ch1.dat	80.00	1270.00	222	223	224	225
ch2.dat	80.00	2550.00	192	193	194	195
ch3.dat	80.00	5100.00	197	198	199	200
ch4.dat	80.00	10150.00	202	203	204	205
ch5.dat	100.00	1270.00	32	33	34	35
ch6.dat	100.00	2550.00	2	3	4	5
ch7.dat	100.00	5100.00	7	8	9	10
ch8.dat	100.00	10150.00	12	13	14	15
ch9.dat	150.00	1270.00	67	68	69	70
ch10.dat	150.00	2550.00	37	38	39	40
ch11.dat	150.00	5100.00	42	43	44	45
ch12.dat	150.00	10150.00	47	48	49	50
ch13.dat	200.00	1270.00	102	103	104	105
ch14.dat	200.00	2550.00	72	73	74	75
ch15.dat	200.00	5100.00	77	78	79	80
ch16.dat	200.00	10150.00	82	83	84	85
ch17.dat	250.00	1270.00	137	138	139	140
ch18.dat	250.00	2550.00	107	108	109	110
ch19.dat	250.00	5100.00	112	113	114	115
ch20.dat	250.00	10150.00	117	118	119	120
ch21.dat	300.00	1270.00	187	188	189	190
ch22.dat	300.00	2550.00	157	158	159	160
ch23.dat	300.00	5100.00	162	163	164	165
ch24.dat	300.00	10150.00	167	168	169	170

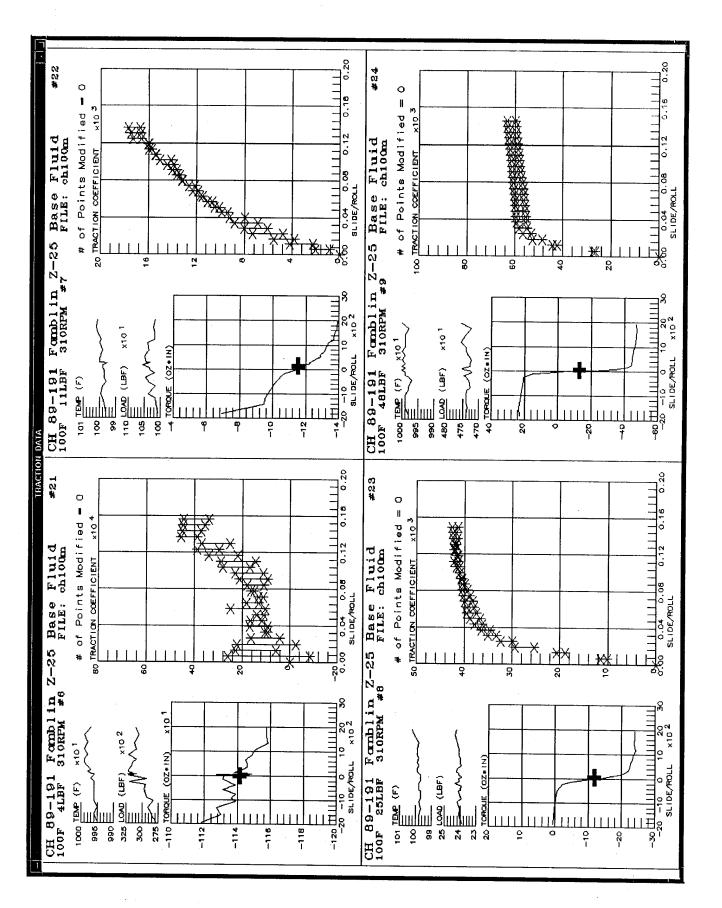


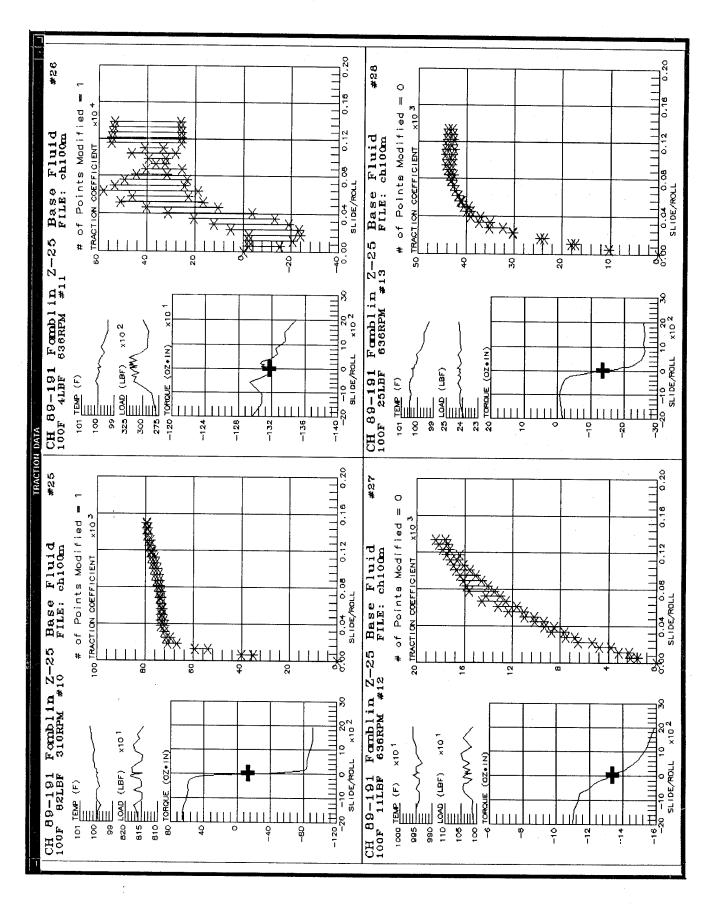


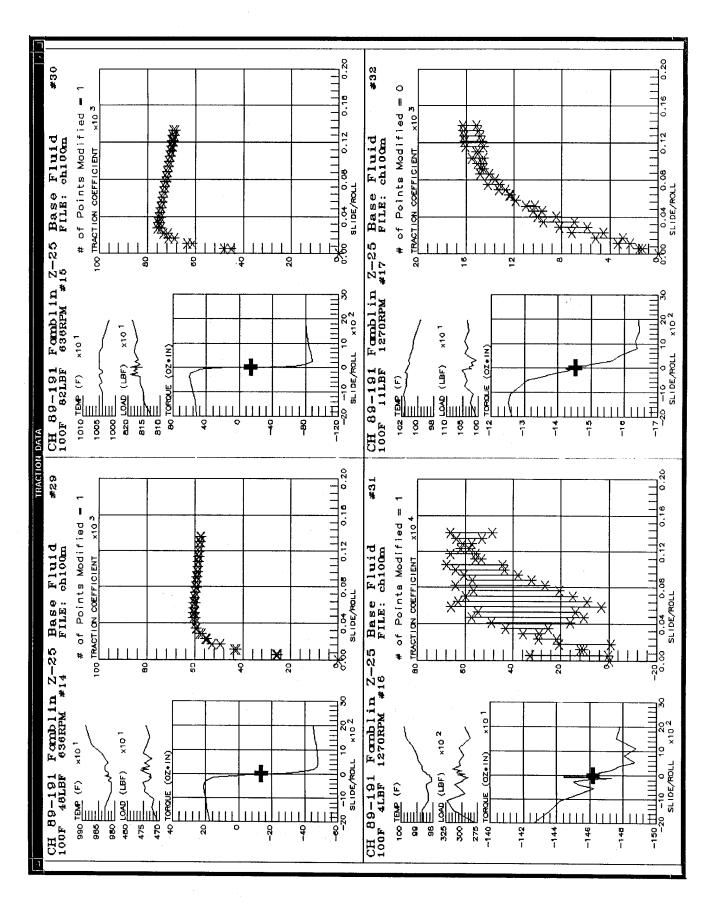


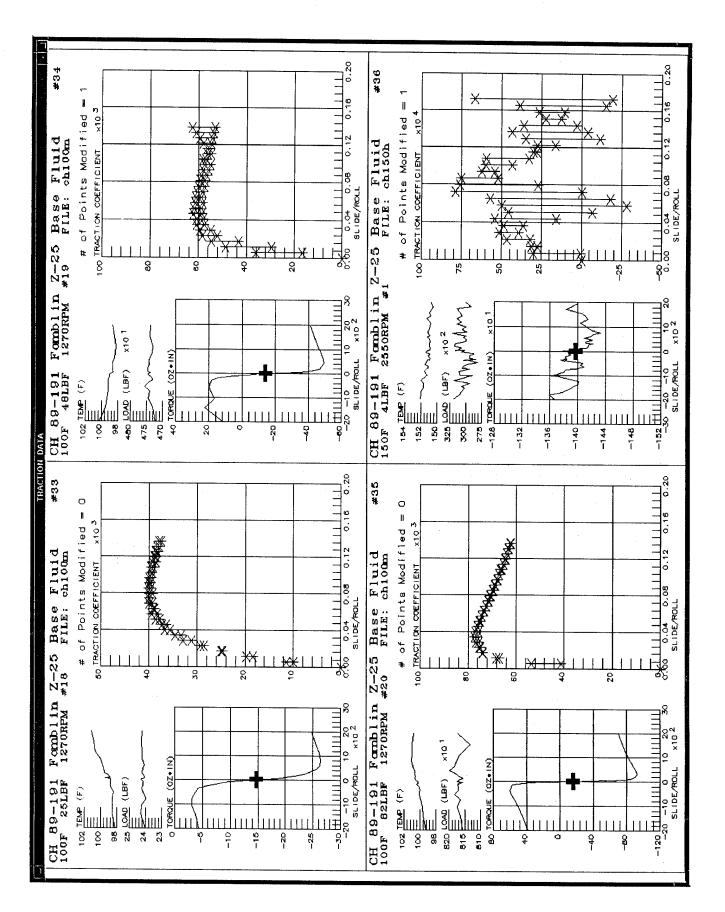


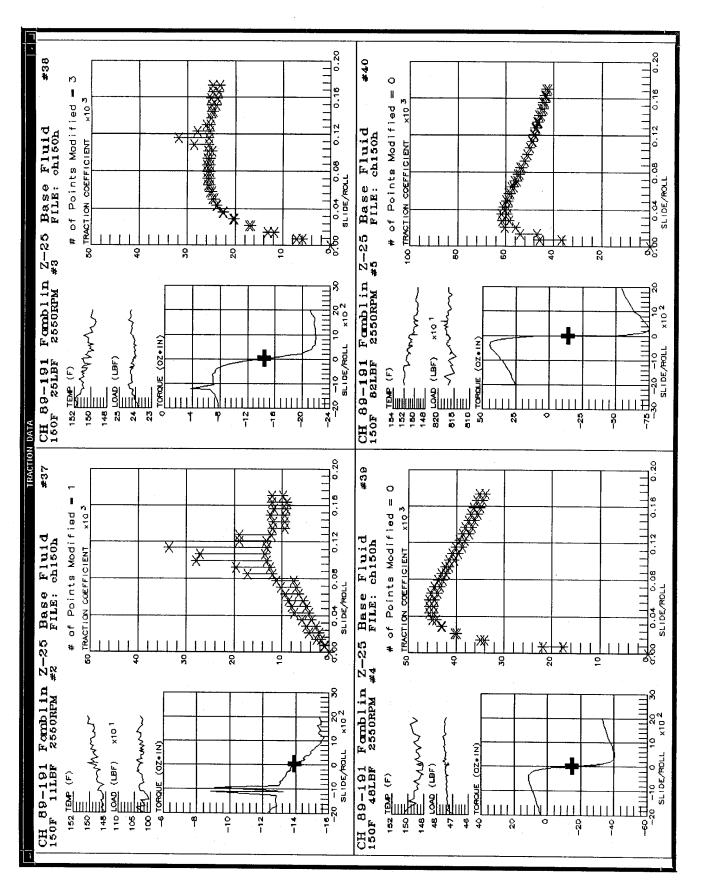


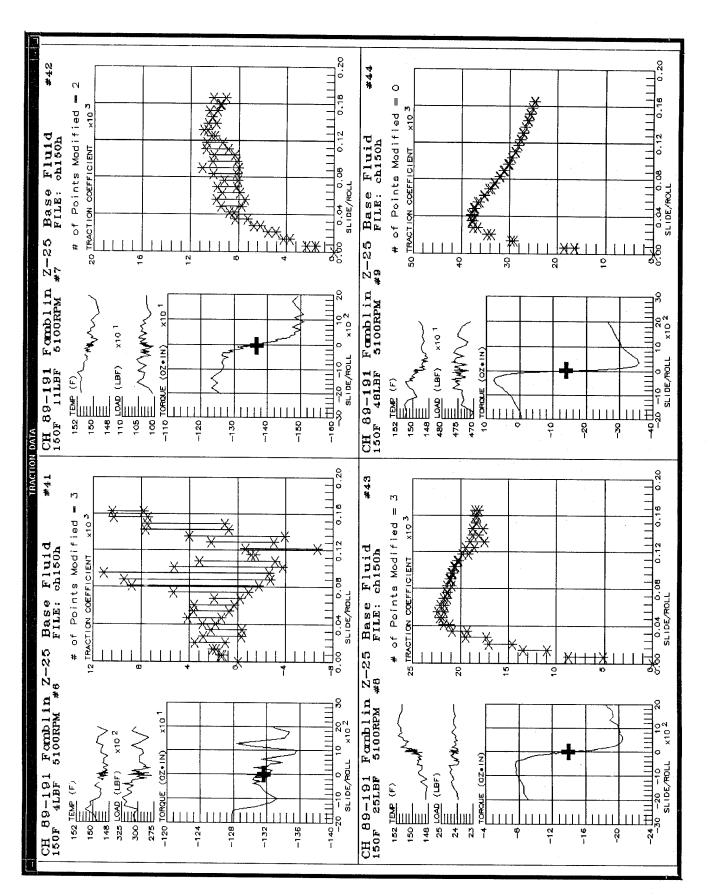


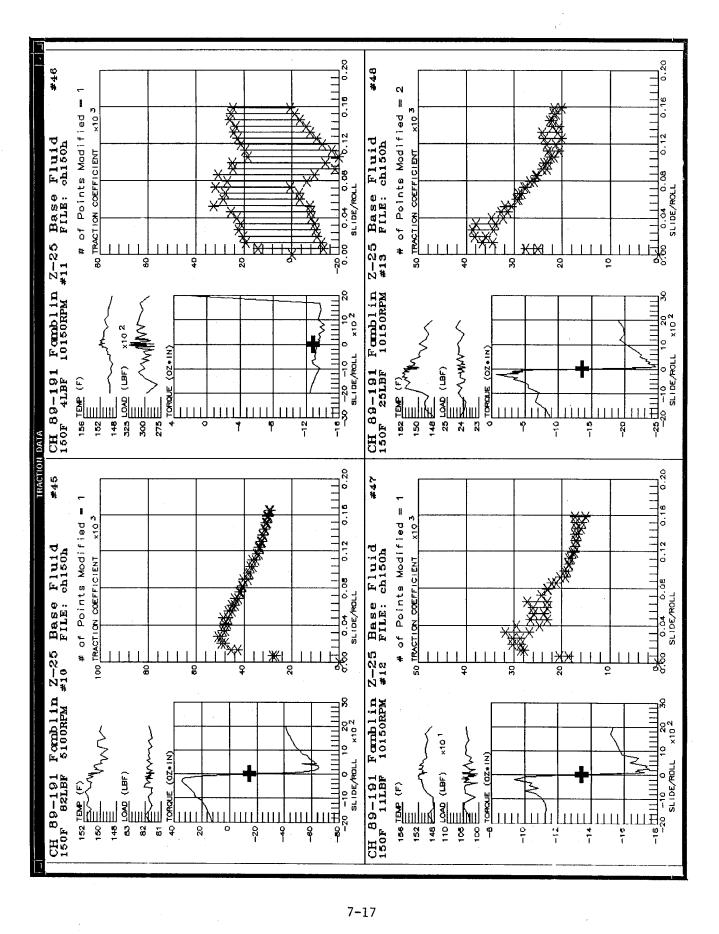


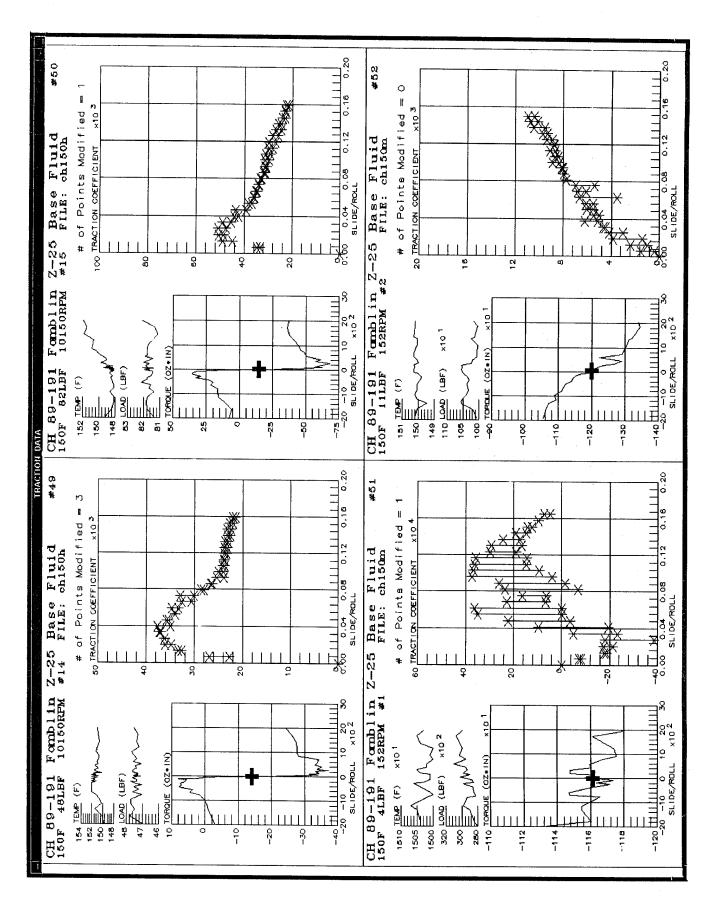


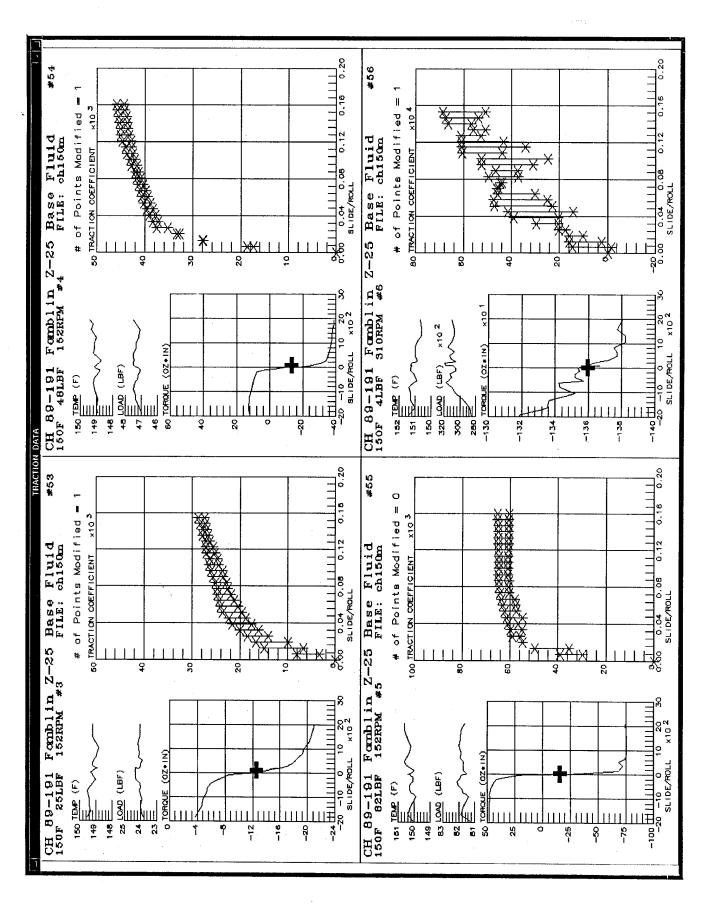


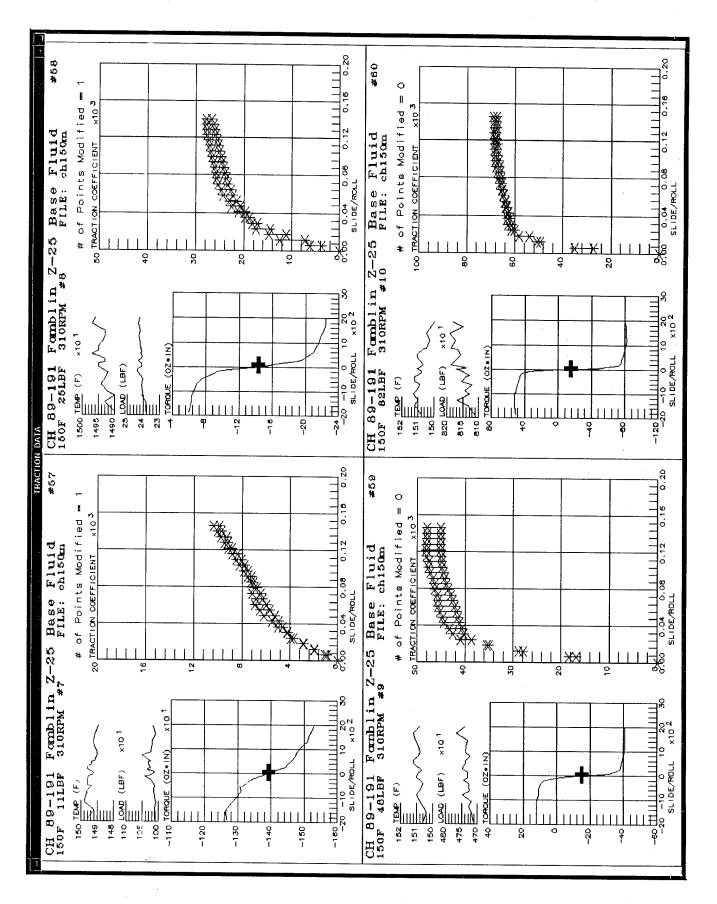


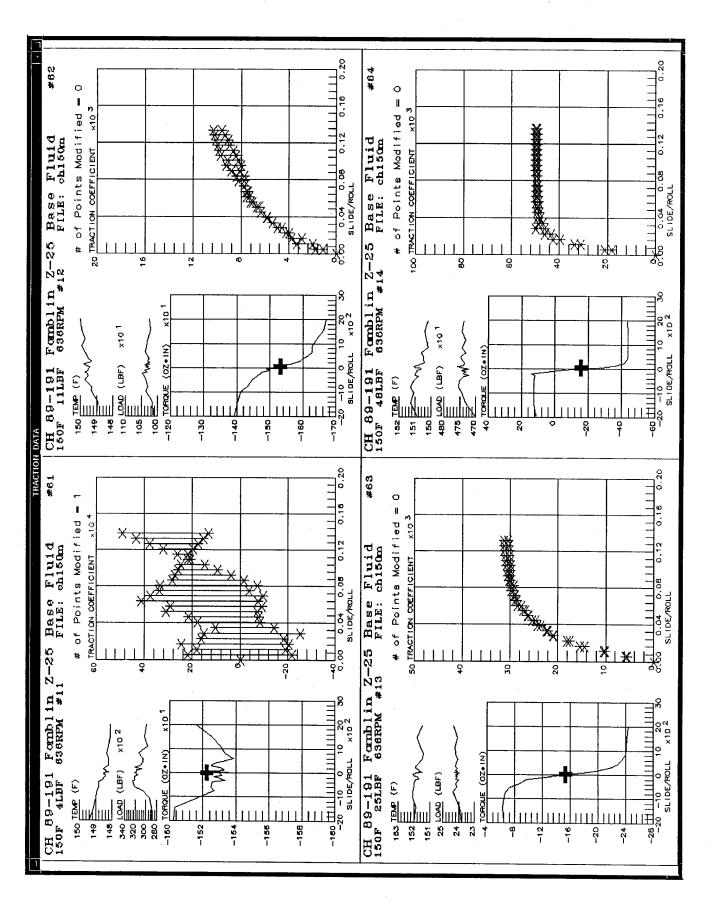


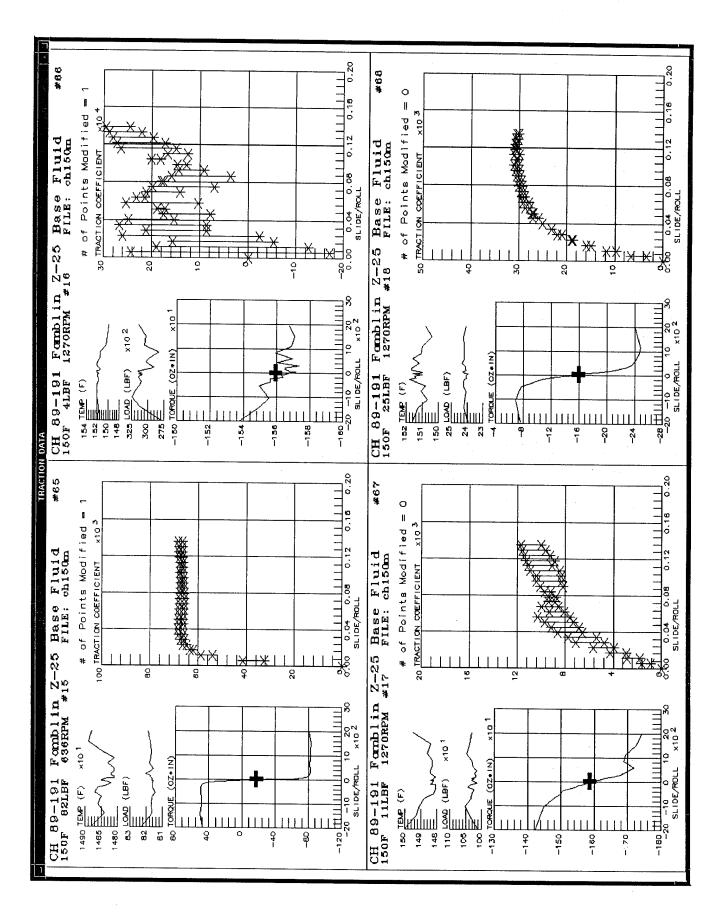


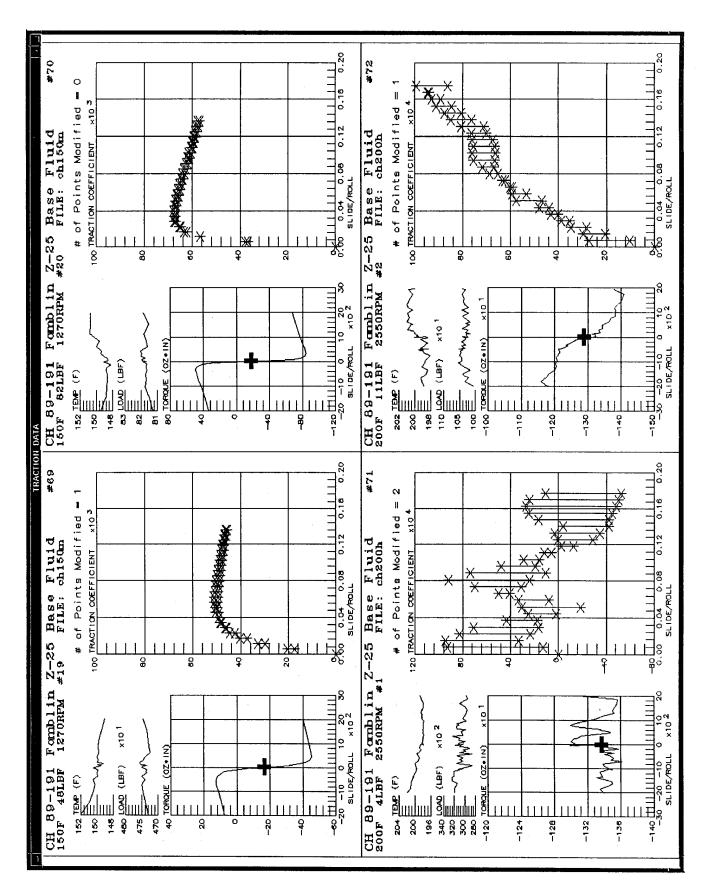


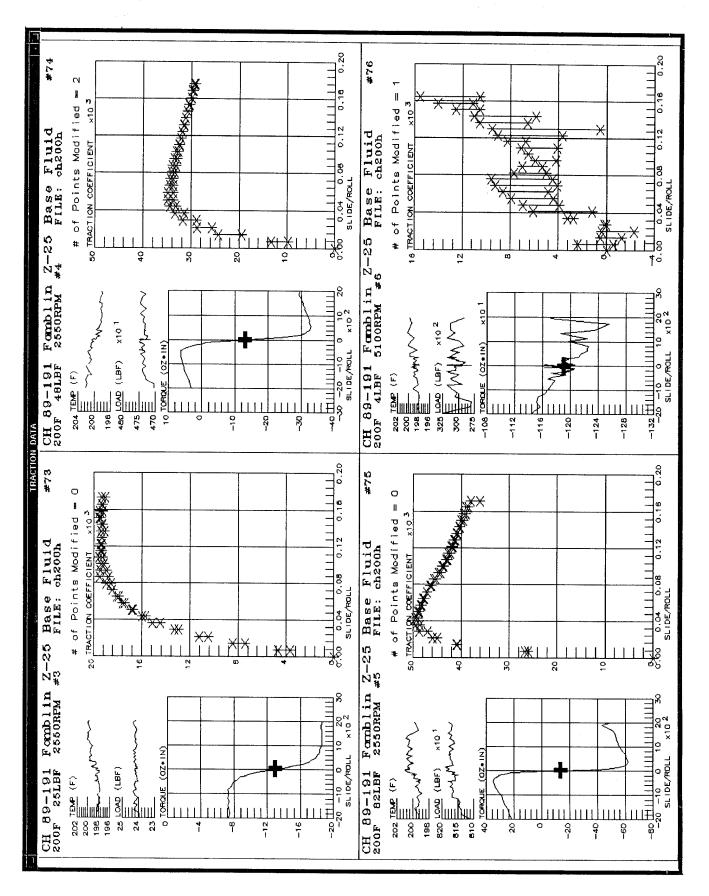


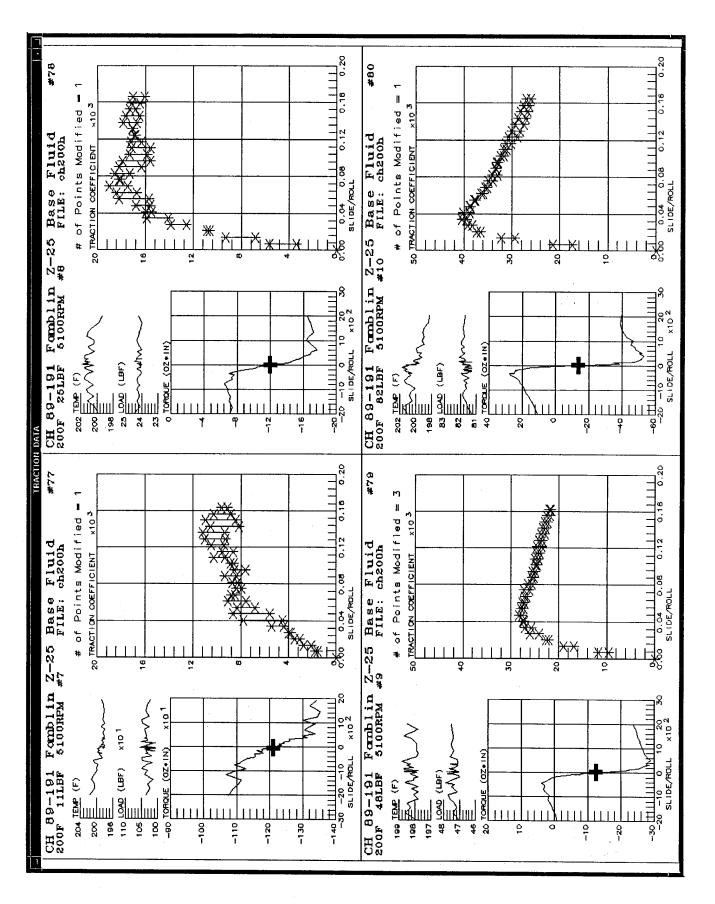


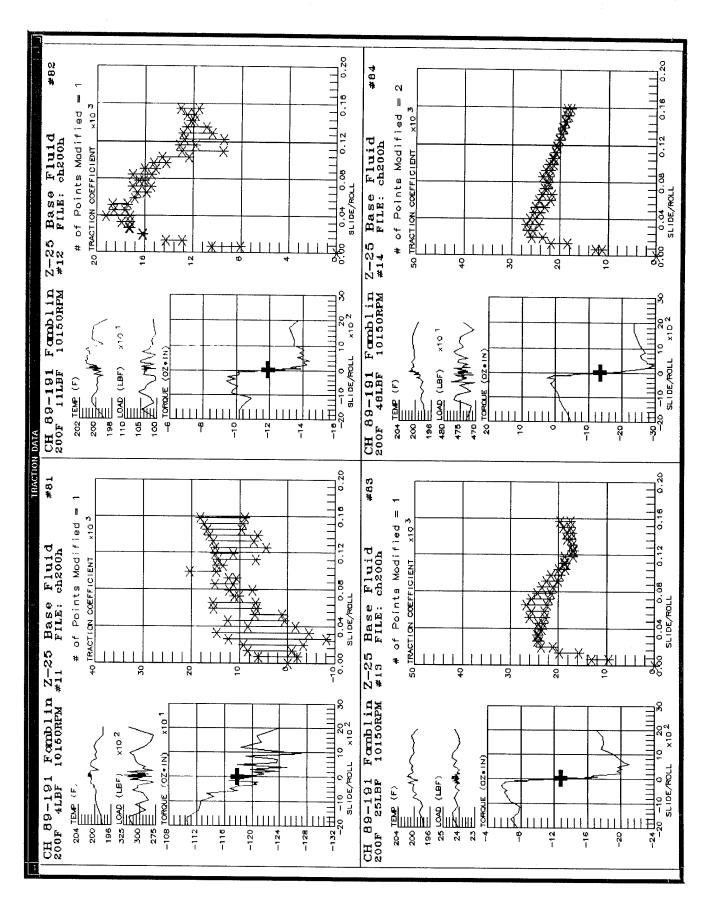


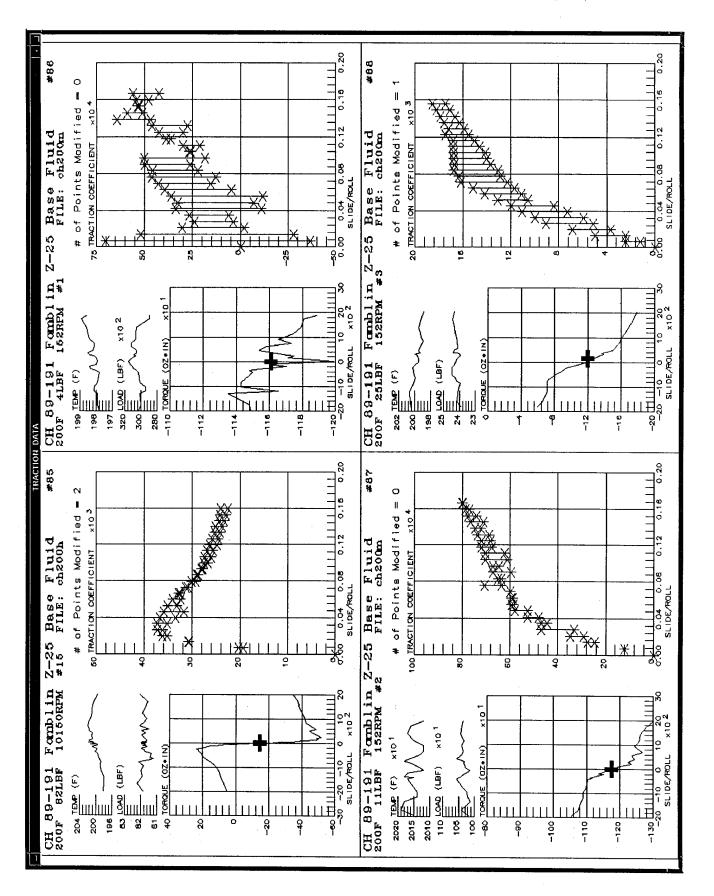


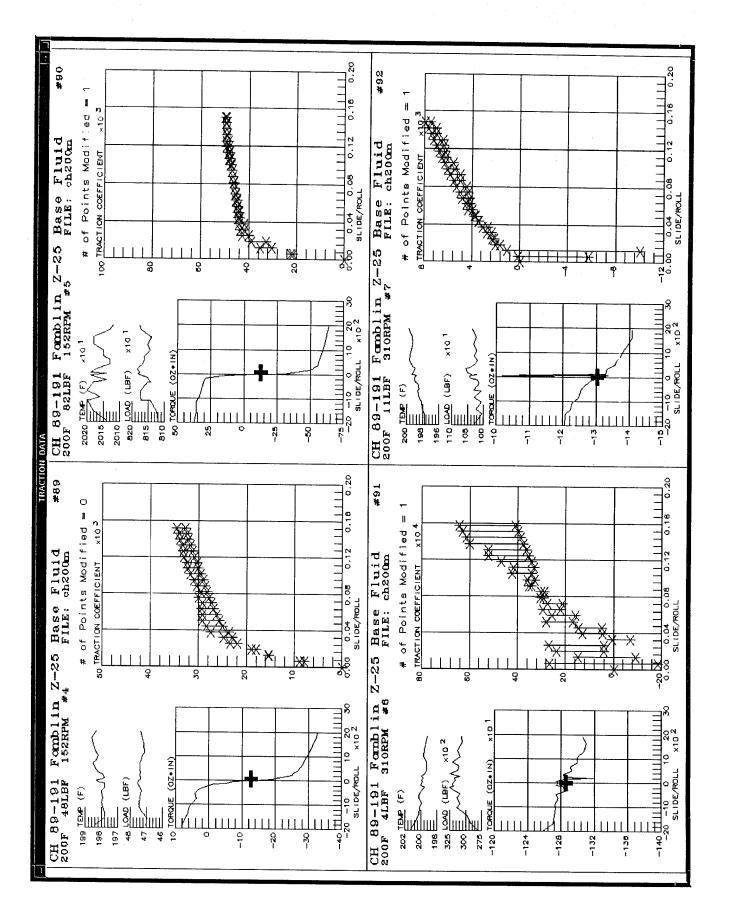


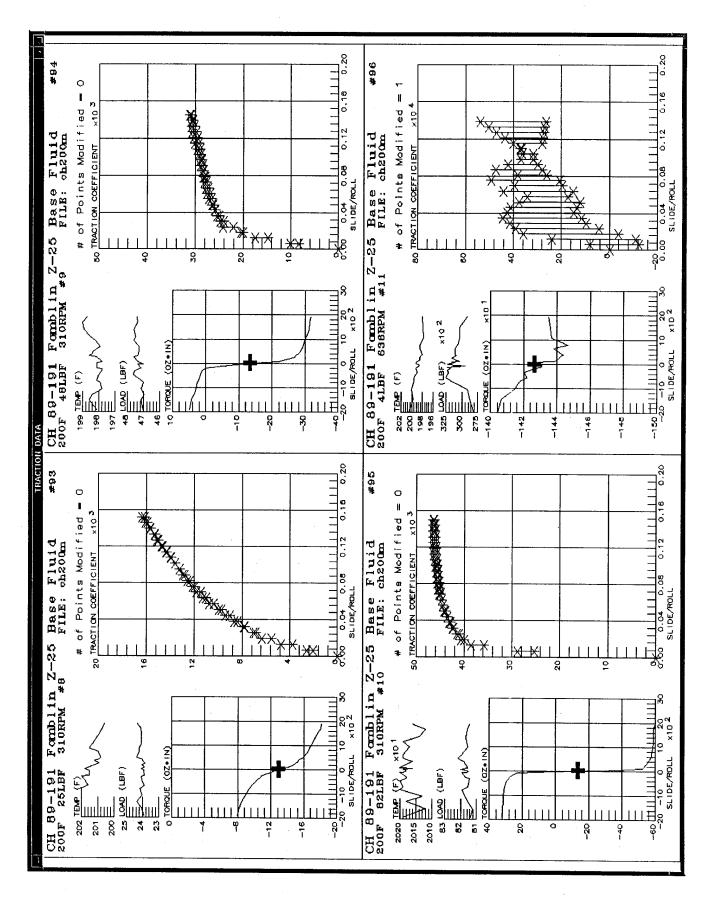


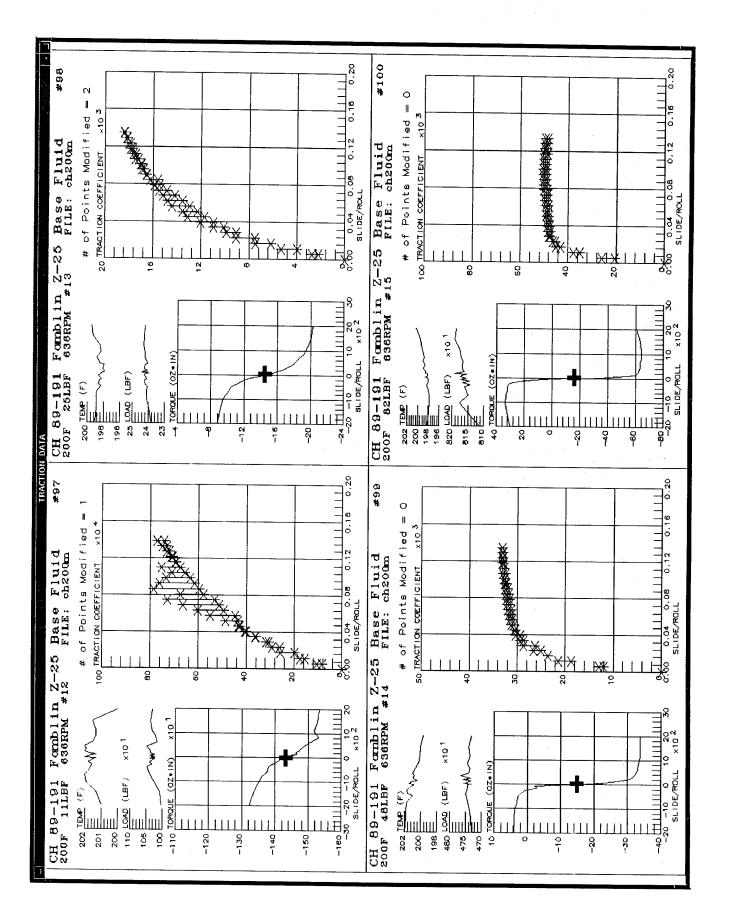


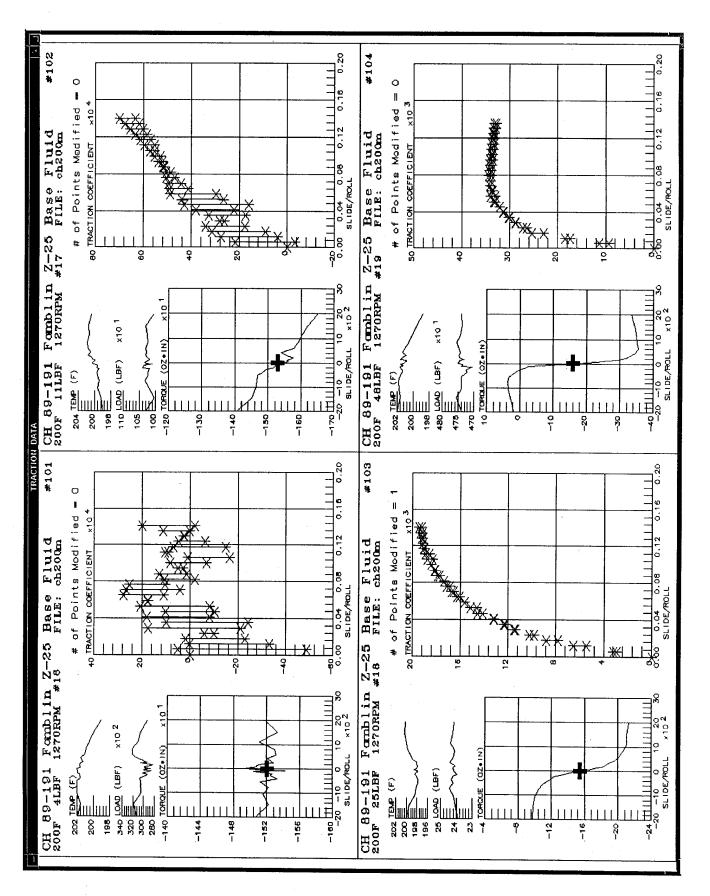


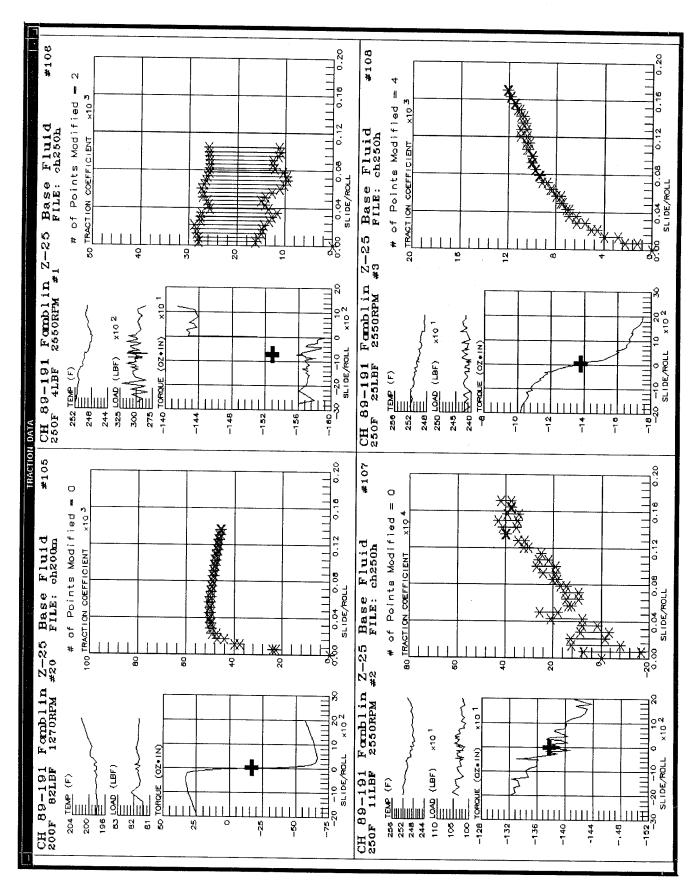


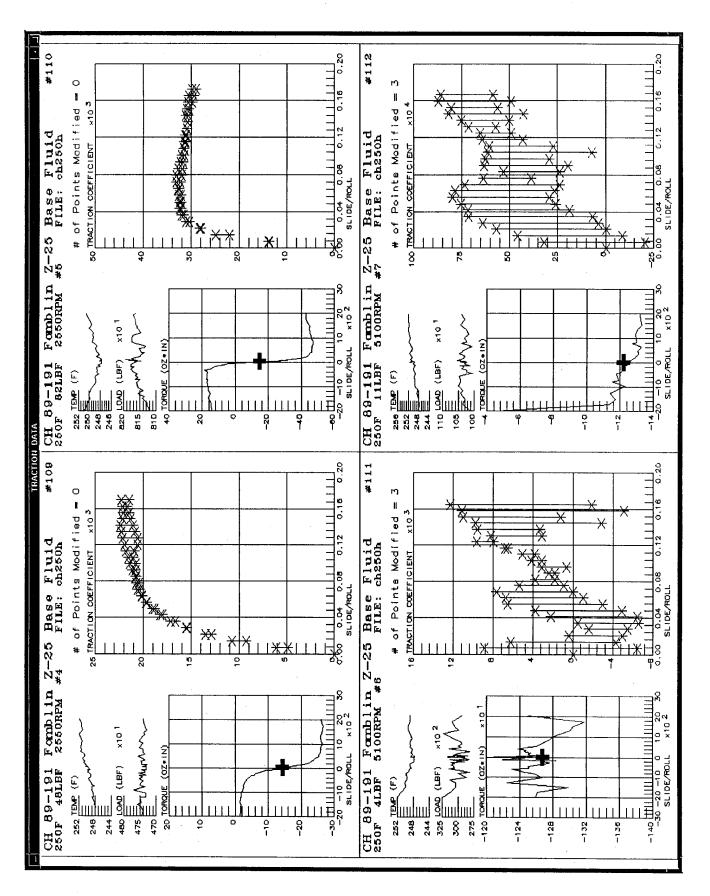


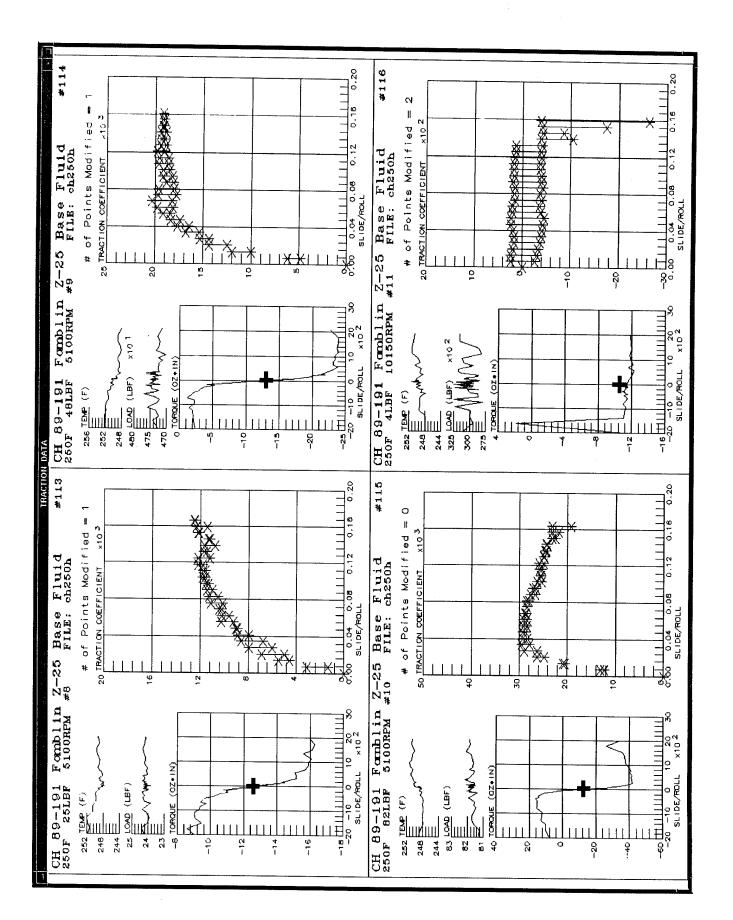


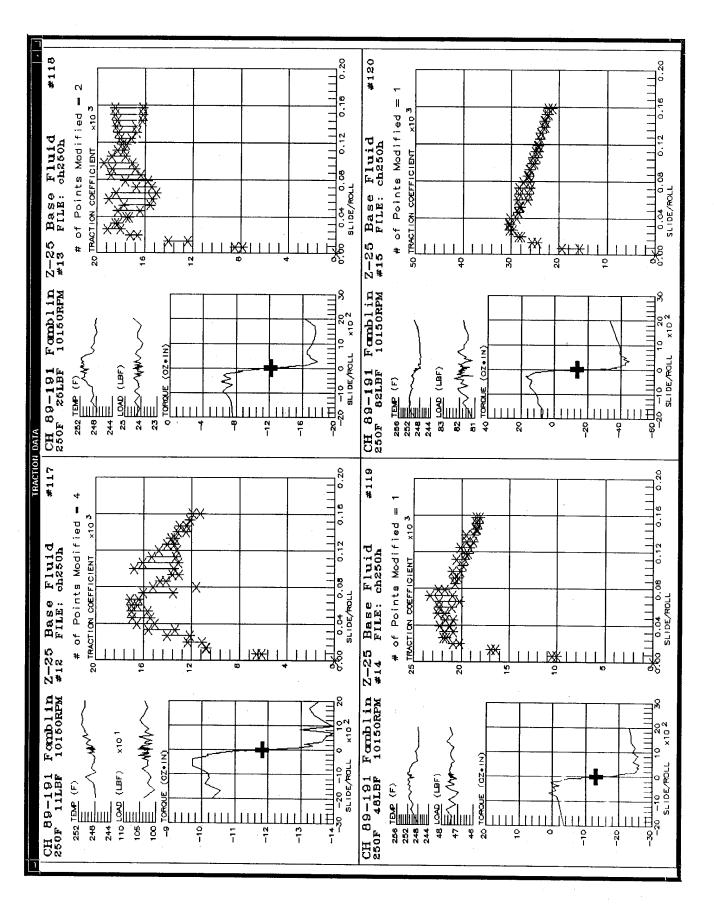


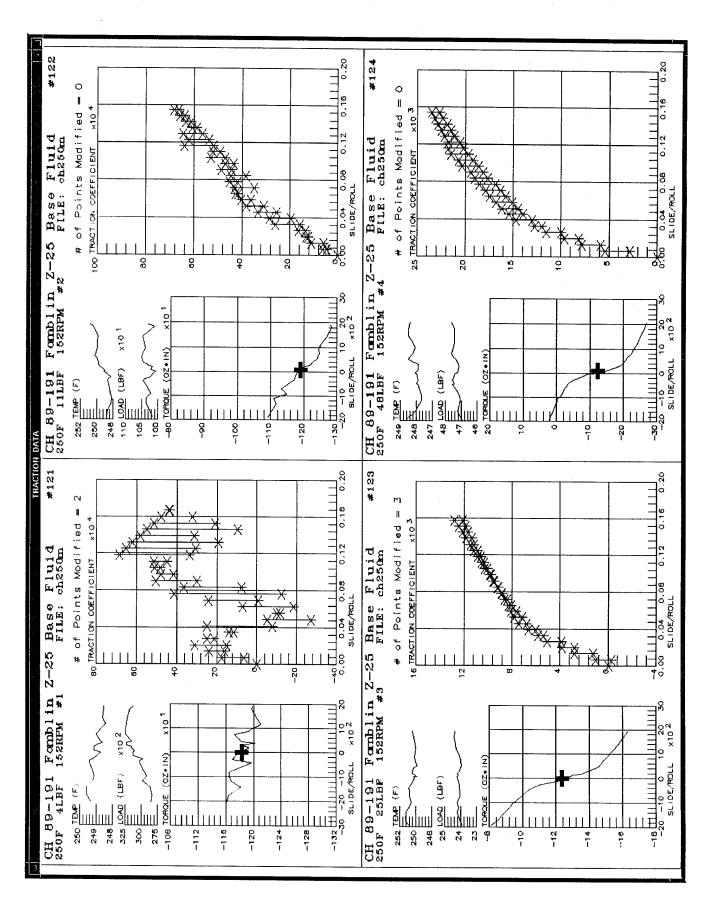


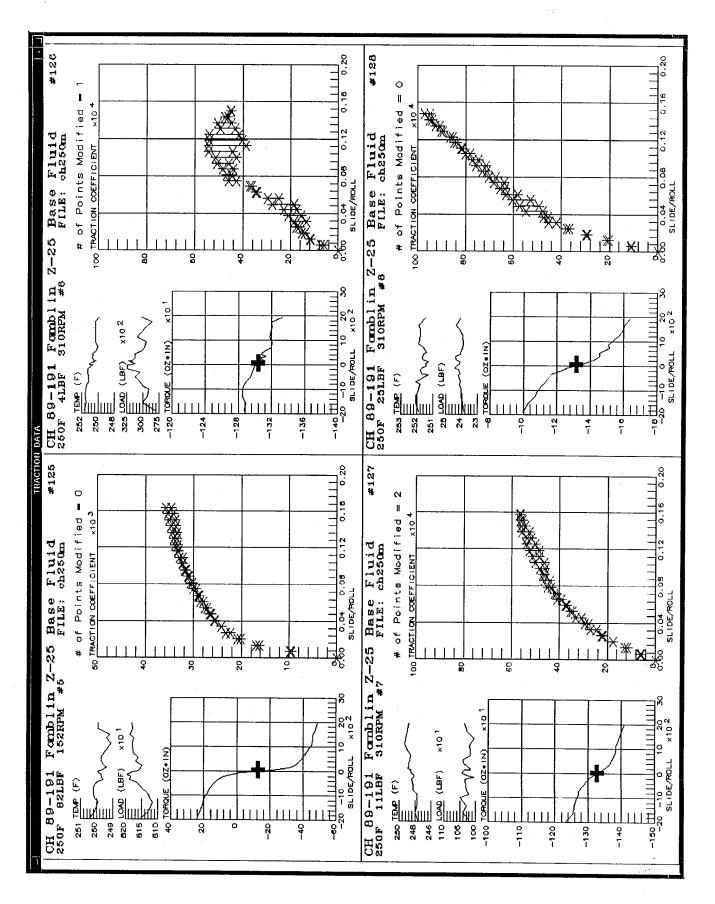


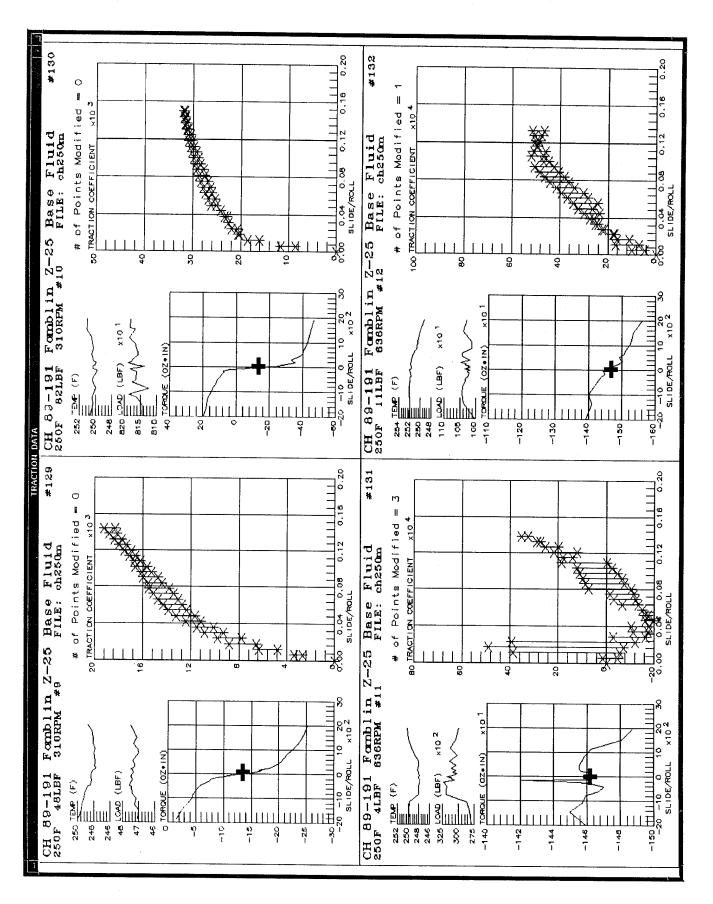


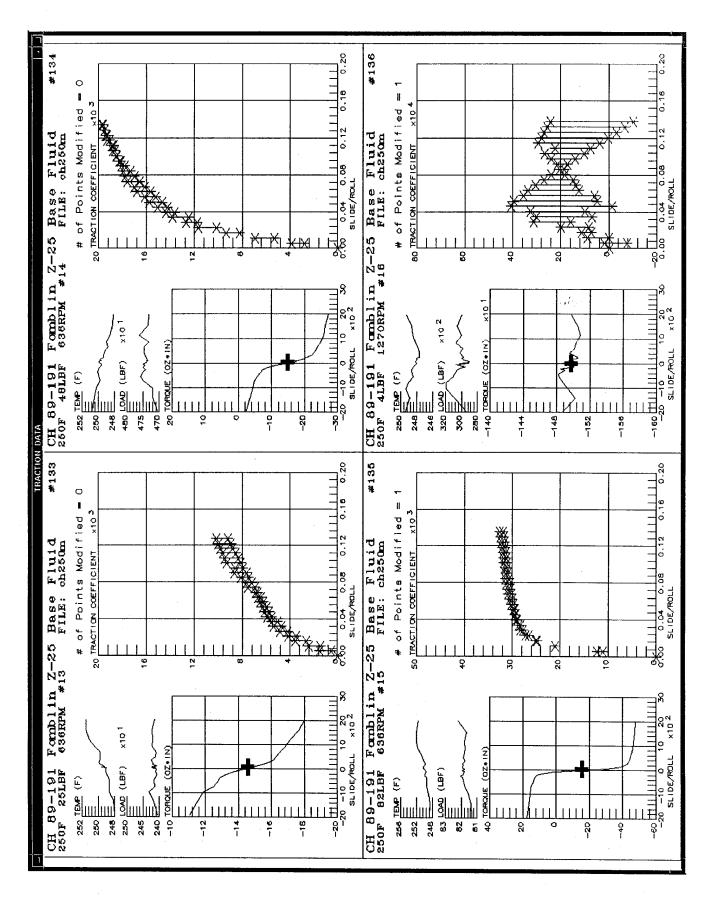


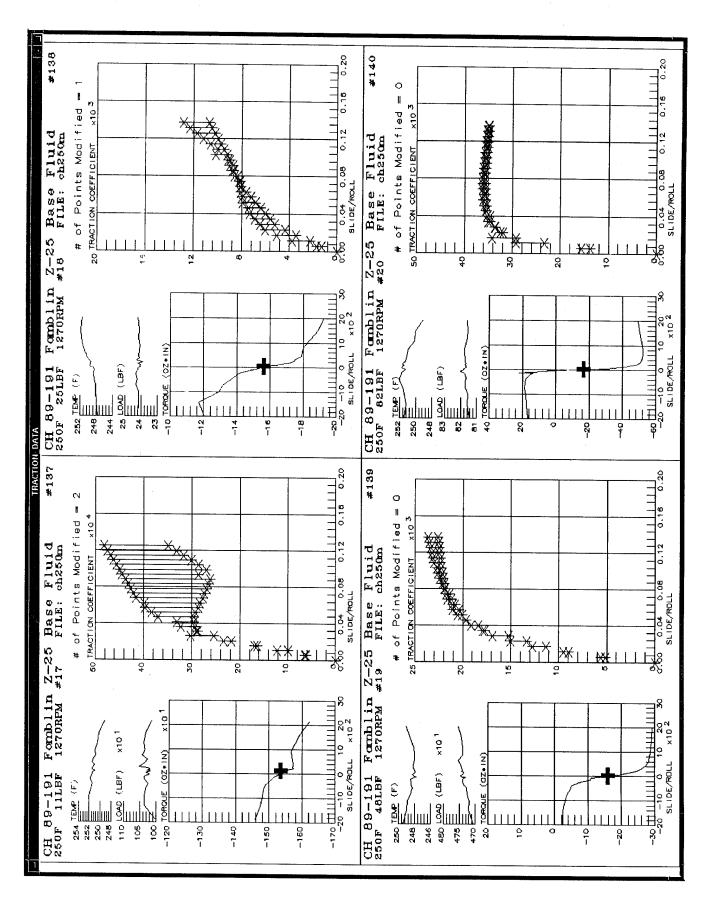


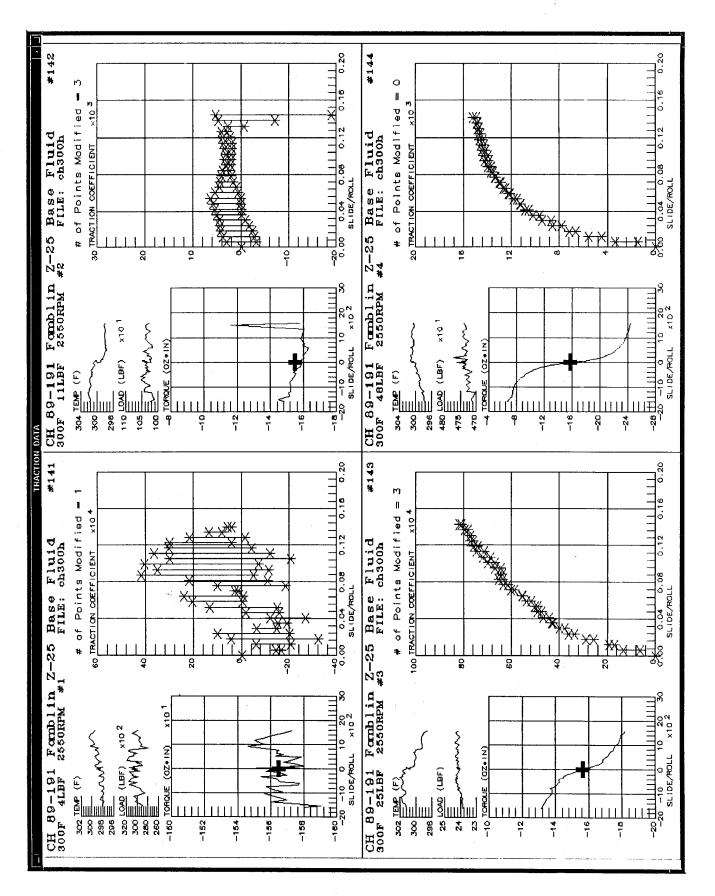


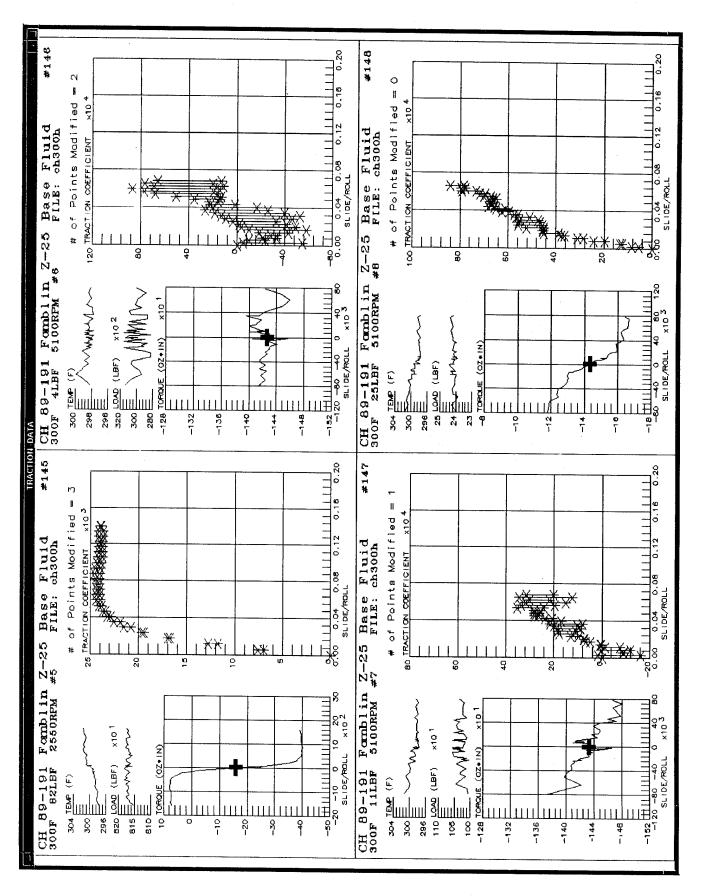


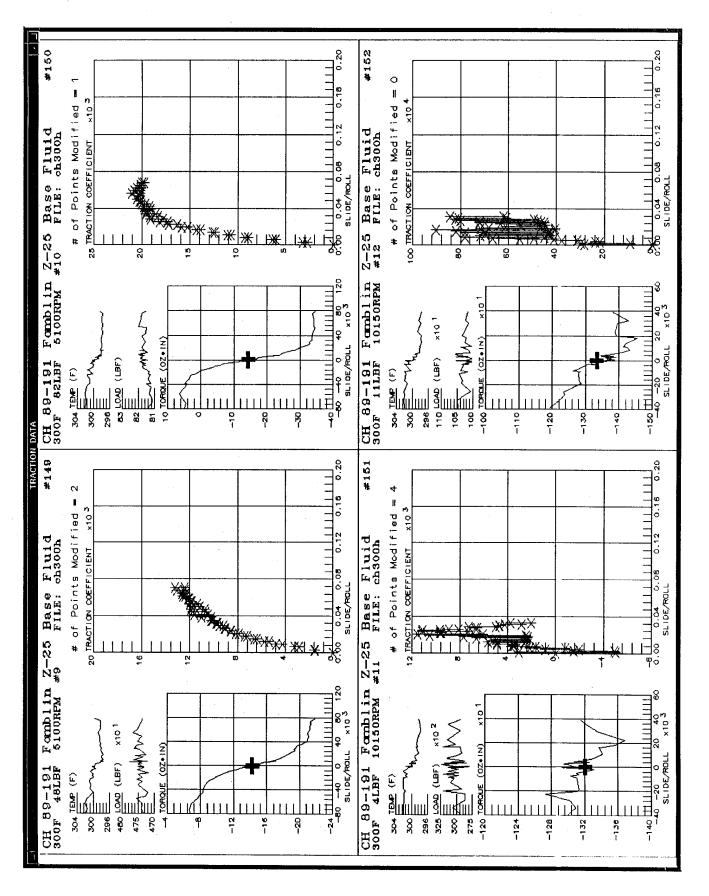


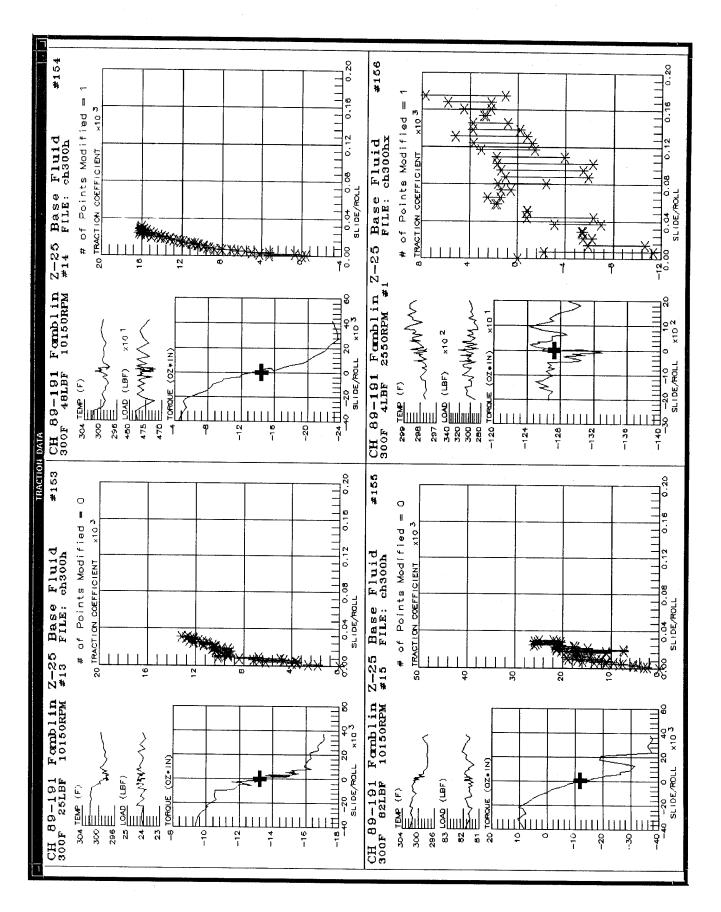


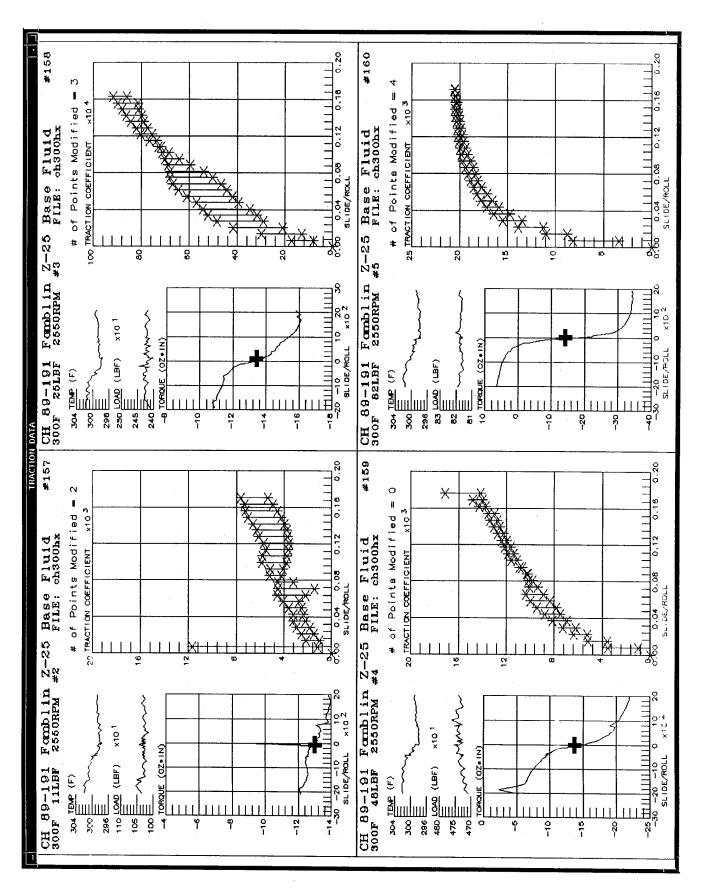


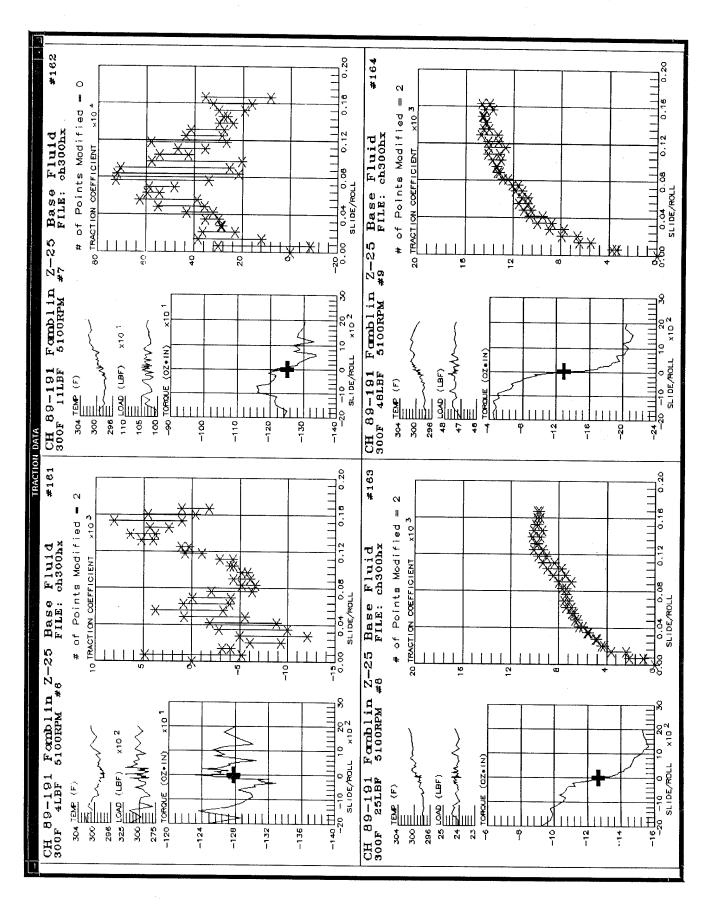


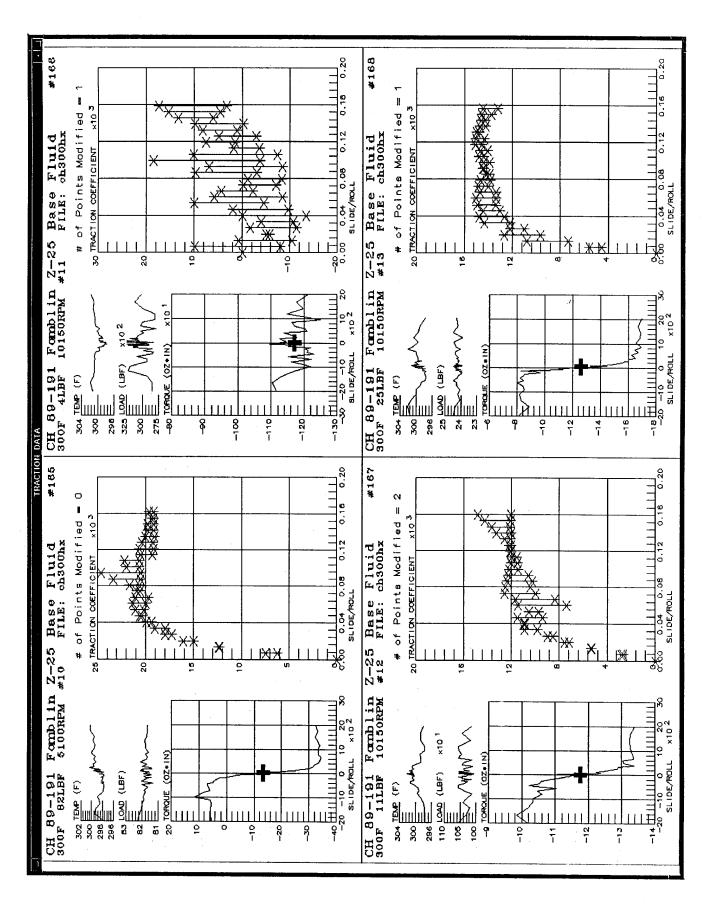


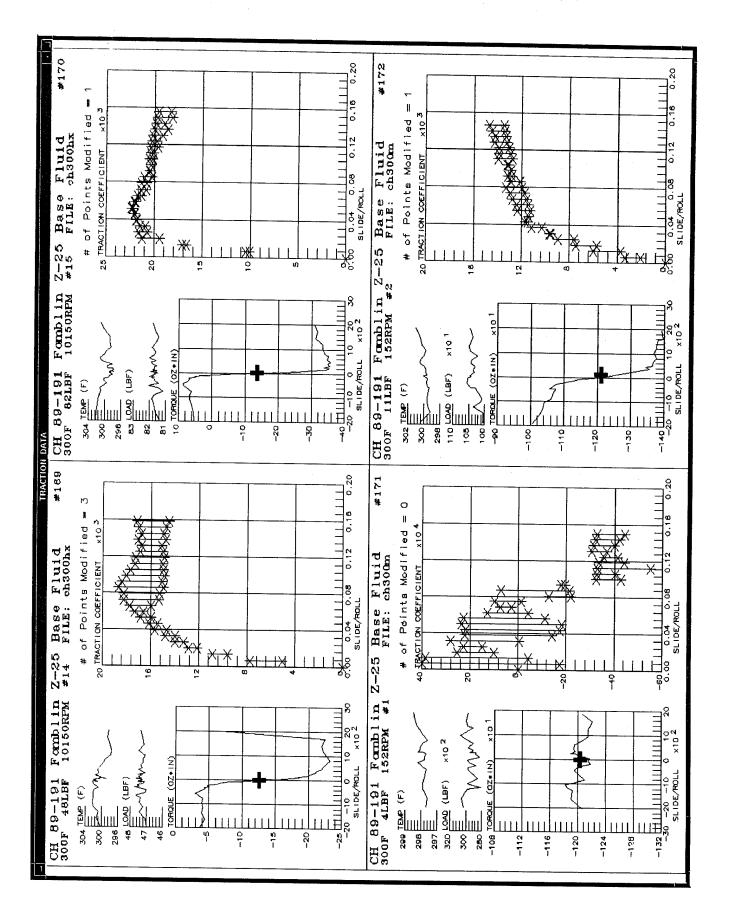


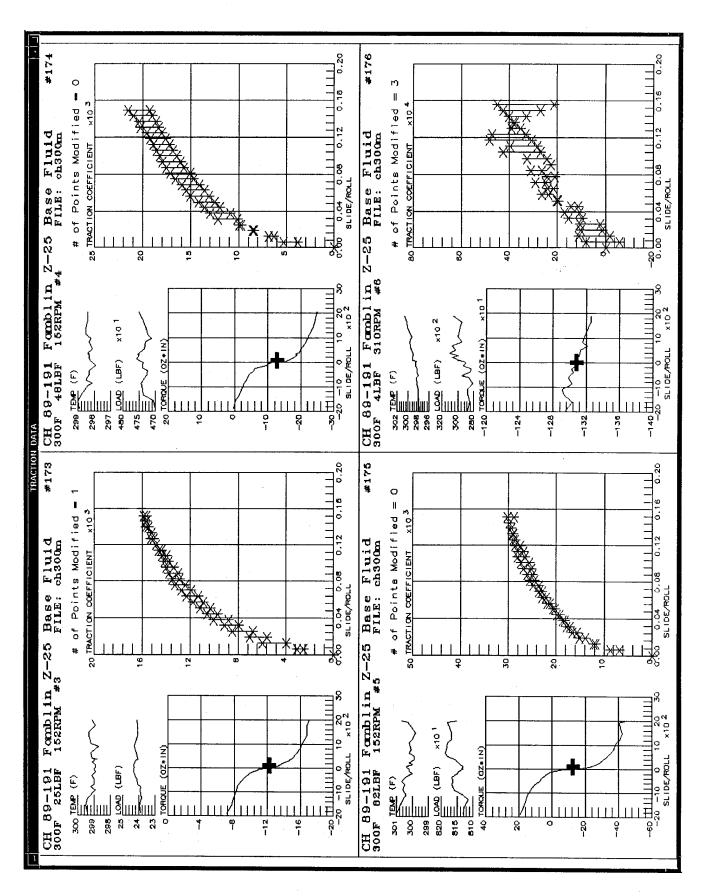


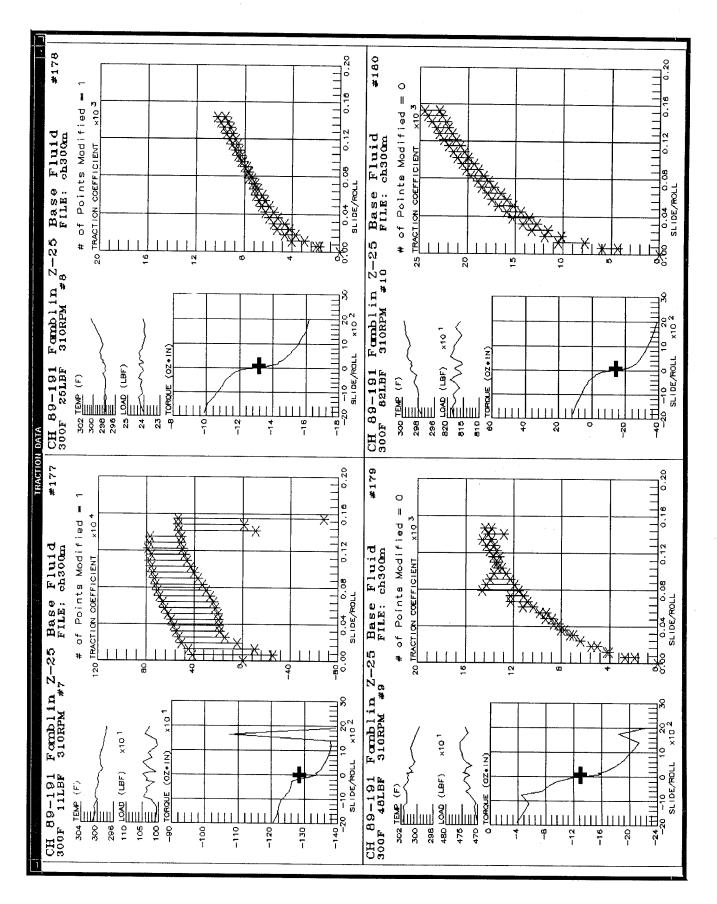


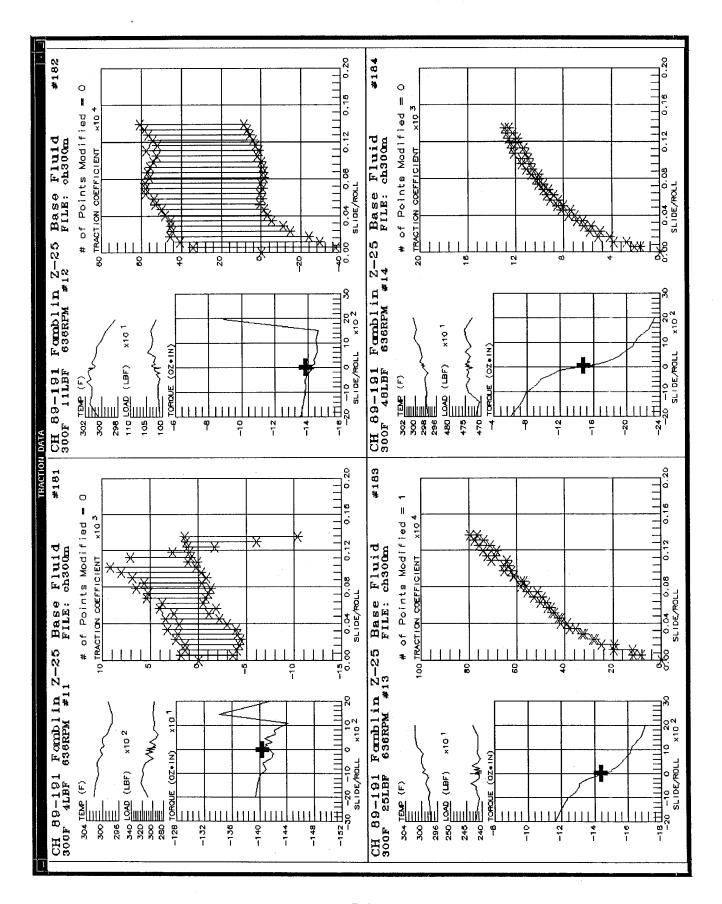


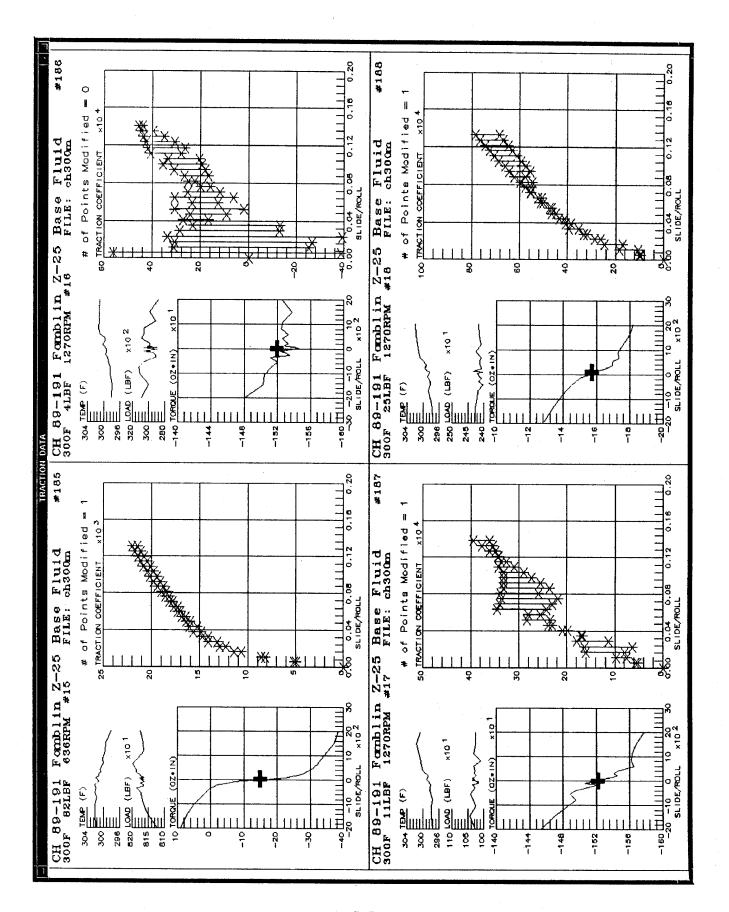


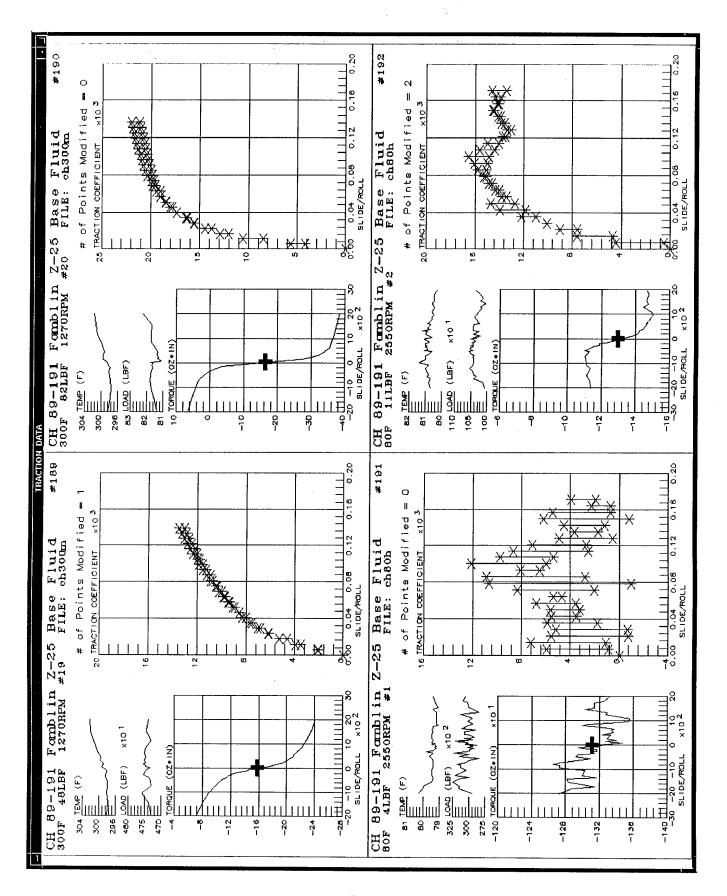


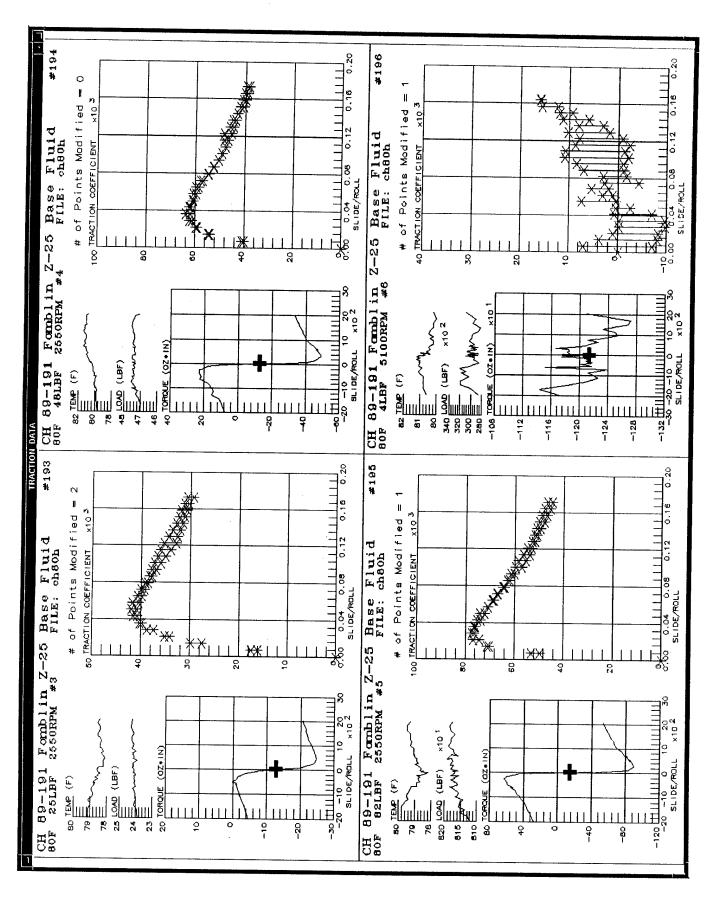


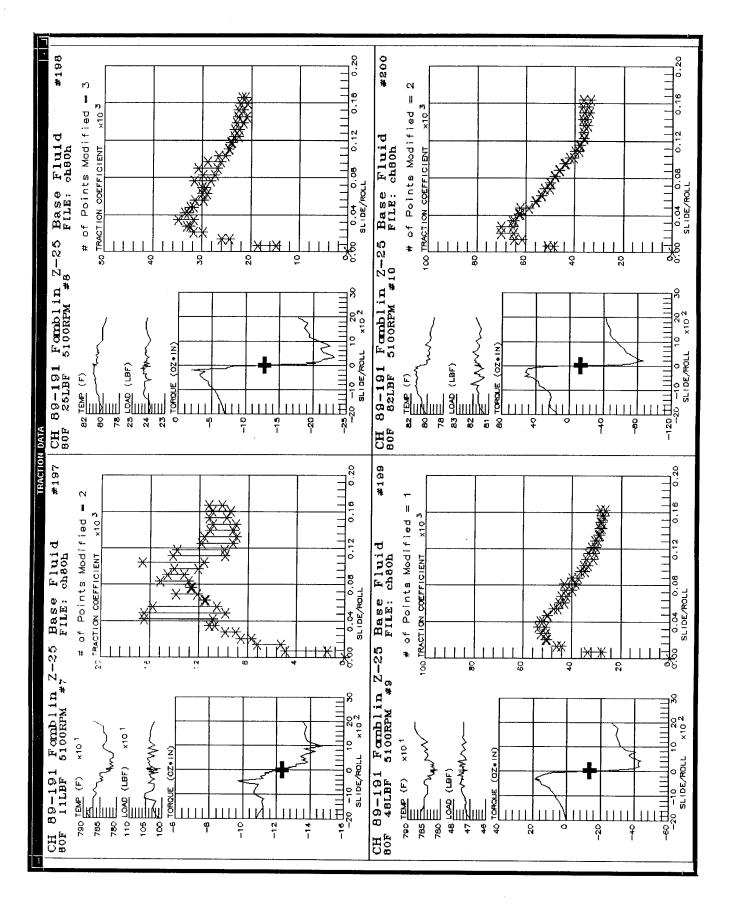


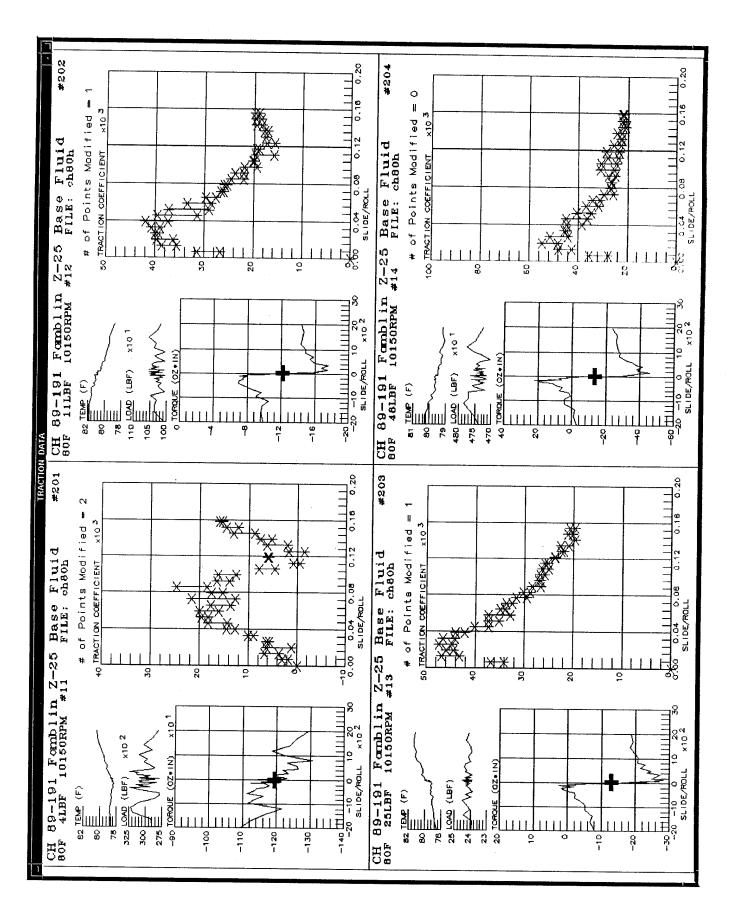


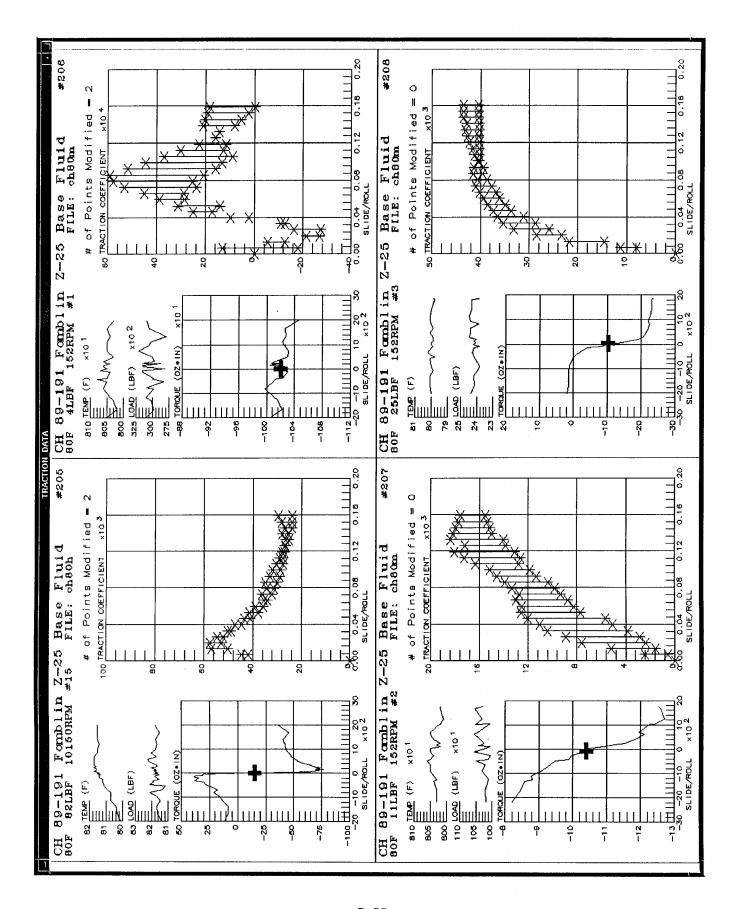


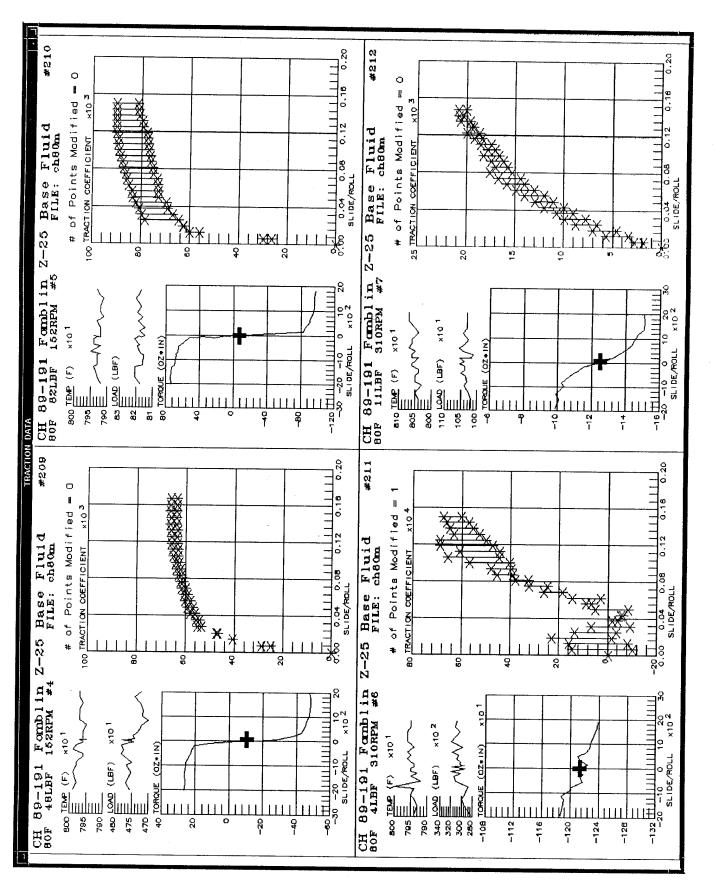


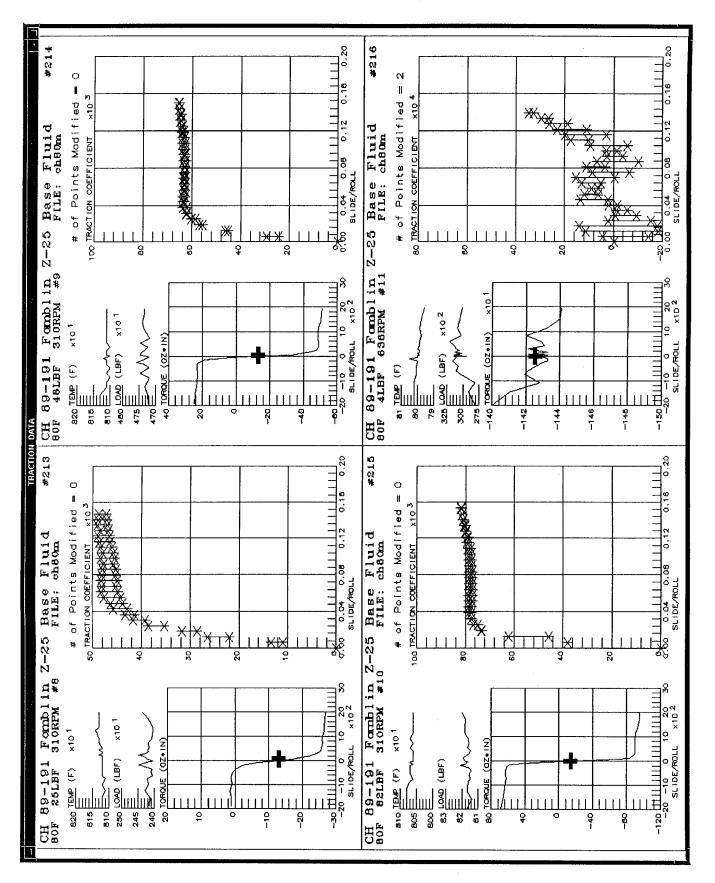


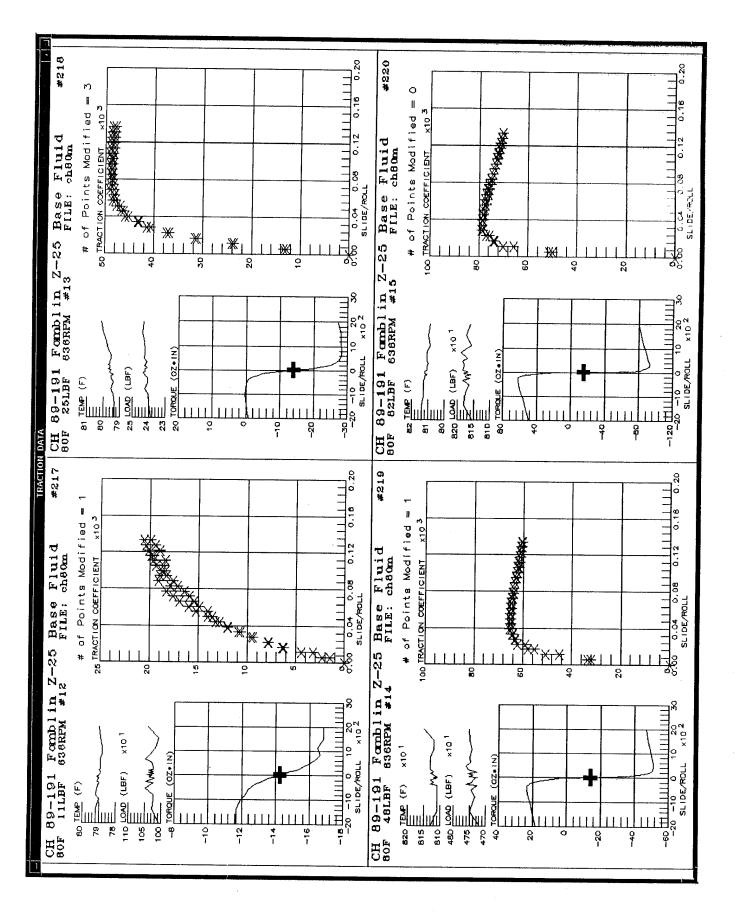


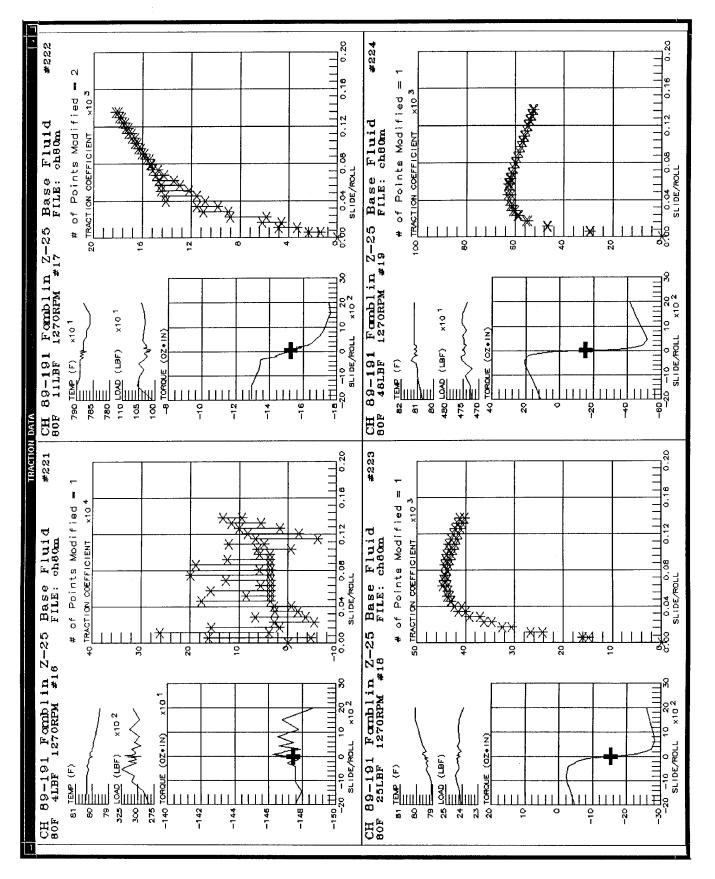


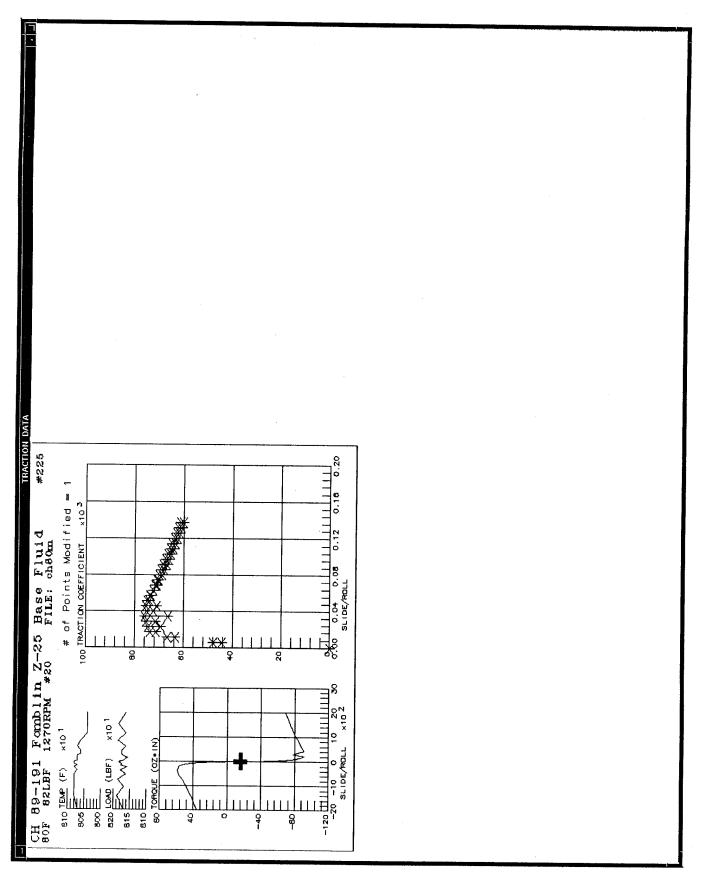


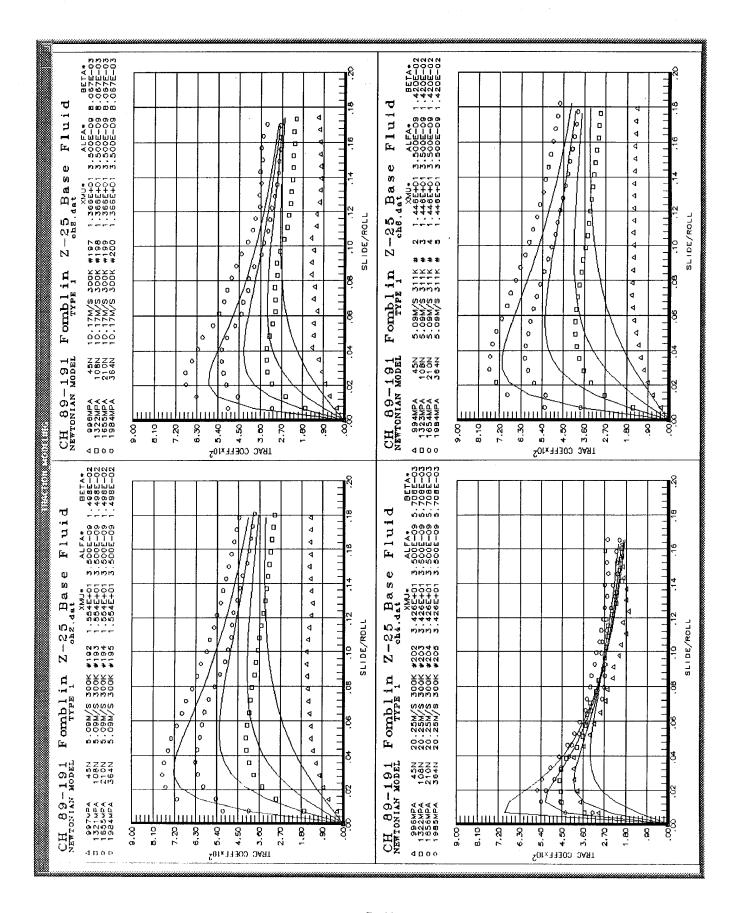


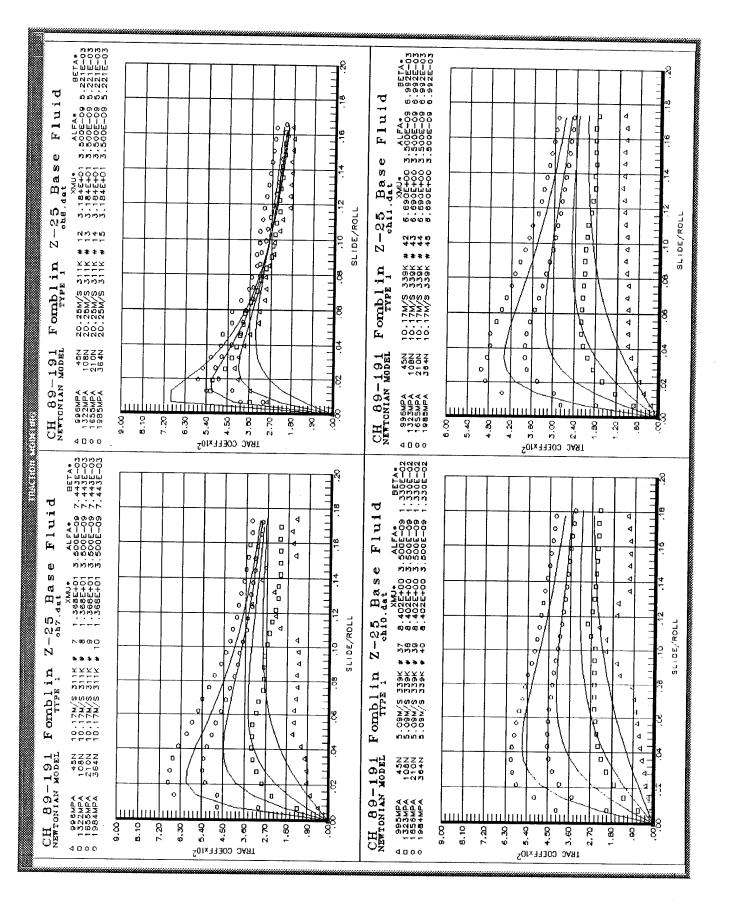


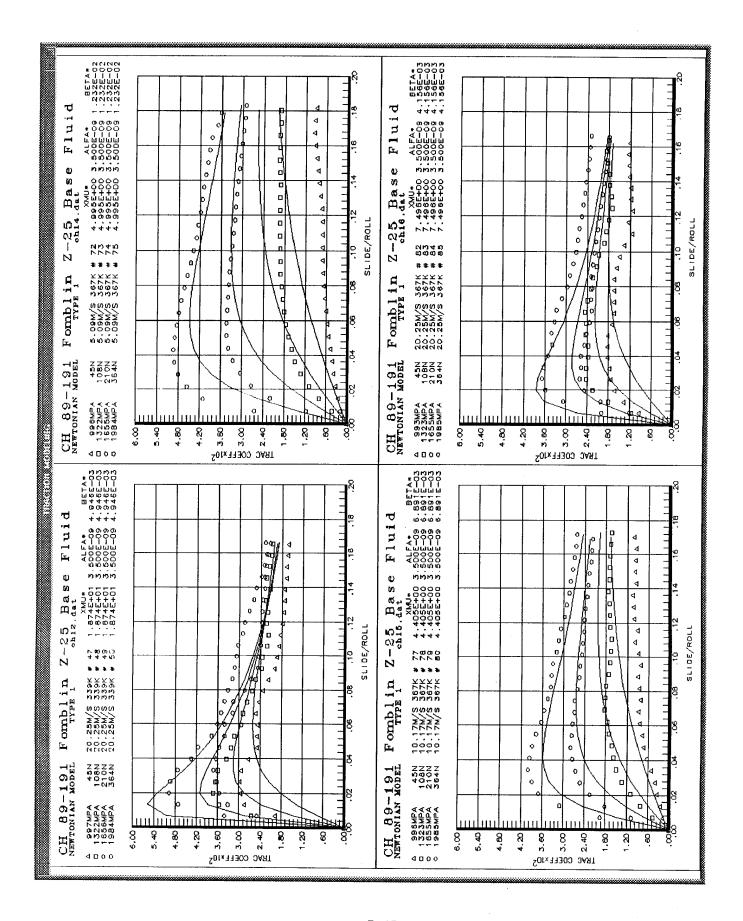


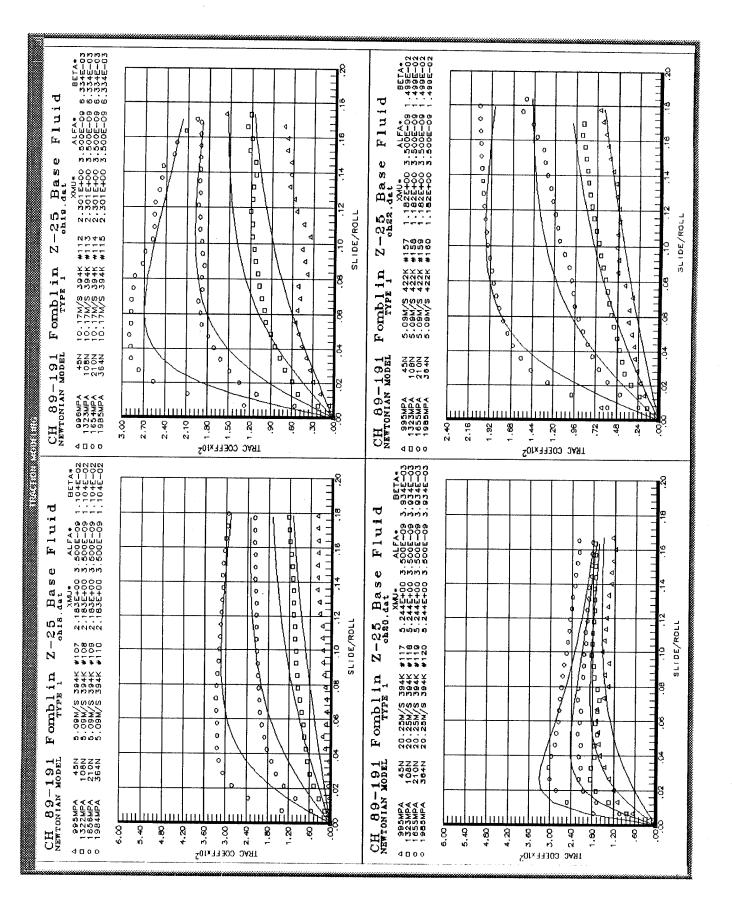


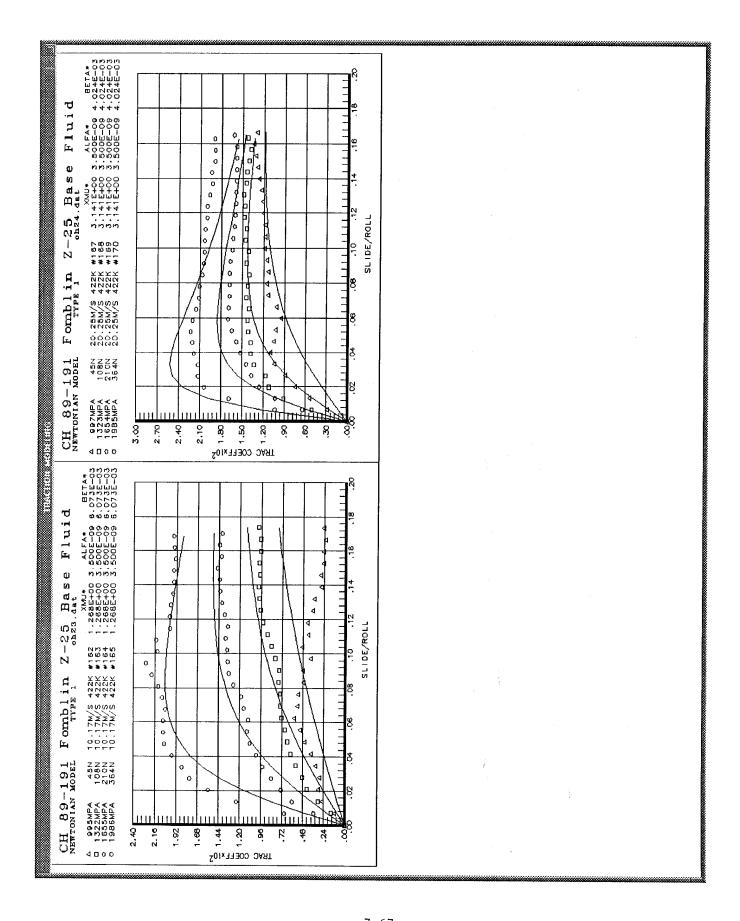












## 8. Traction Data Set G: 88-177 Demnum S20

Data set name: CE 88-177 Demnum S-20 Rolling radii [Disks 1 & 2] (in): 0.75 0.75 Crown radii [Disks 1 & 2] (in): 1.20 1.20

Number of data sets found = 240

	Temp F	Load lbf	Rpm1	Rpm2	RollRpm	Points	Dataset/Test	#
1			1919.00	3199.00	2559.00	50	ce100h #1	
2	100.00		1919.00	3199.00	2559.00	50	ce100h #2	
3	100.00		1919.00	3199.00	2559.00	50	ce100h #3	
4	100.00		1919.00	3199.00	2559.00	50	ce100h #4	
5	100.00		1919.00	3199.00	2559.00	50	ce100h #5	
6	100.00	4.23	4572.00	5588.00	5080.00	50	ce100h #6	
7 8		14.27	4572.00	5588.00	5080.00	50	ce100h #7	
9		33.80 66.03	4572.00	5588.00	5080.00	50	ce100h #8	
10		114.17	4572.00 4572.00	5588.00 5588.00	5080.00	50	ce100h #9	
11	100.00	4.23	6875.00	8403.00	5080.00 7639.00	50 50	ce100h #10 ce100h #11	
12	100.00	14.27	6875.00	8403.00	7639.00	50	ce100h #11 ce100h #12	
13	100.00	33.80	6875.00	8403.00	7639.00	50	ce100h #12	
14	100.00	66.03	6875.00	8403.00	7639.00	50	ce100h #14	
15	100.00	114.17	6875.00	8403.00	7639.00	50	ce100h #15	
16	100.00	4.23	9178.00	11217.00	10197.50	50	ce100h #16	
17	100.00	14.27	9178.00	11217.00	10197.50	50	ce100h #17	
18 19	100.00 100.00	33.80 66.03	9178.00	11217.00	10197.50	50	ce100h #18	
20	100.00	114.17	9178.00 9178.00	11217.00	10197.50	50	ce100h #19	
21	100.00	4.23	114.00	11217.00 190.00	10197.50 152.00	50 50	ce100h #20	
22	100.00	14.27	114.00	190.00	152.00	50	ce100l #1 ce100l #2	
23	100.00	33.80	114.00	190.00	152.00	50	ce100t #2	
24	100.00	66.03	114.00	190.00	152.00	50	ce1001 #4	
25	100.00	114.17	114.00	190.00	152.00	50	ce1001 #5	
26	100.00	4.23	229.00	381.00	305.00	50	ce1001 #6	
27	100.00	14.27	229.00	381.00	305.00	50	ce1001 #7	
28	100.00	33.80	229.00	381.00	305.00	50	ce100l #8	
29	100.00	66.03	229.00	381.00	305.00	50	ce100l #9	
30	100.00	114.17	229.00	381.00	305.00	50	ce100l #10	
31	100.00	4.23	487.00	811.00	649.00	50	ce100l #11	
32	100.00	14.27	487.00	811.00	649.00	50	ce100l #12	
33 34	100.00 100.00	33.80	487.00	811.00	649.00	50	ce100l #13	
35	100.00	66.03 114.17	487.00 487.00	811.00 811.00	649.00	50	ce1001 #14	
36	100.00	4.23	945.00	1575.00	649.00 1260.00	50 50	ce100l #15	
37	100.00	14.27	945.00	1575.00	1260.00	50	ce100l #16 ce100l #17	
38	100.00	33.80	945.00	1575.00	1260.00	50	ce1001 #18	
39	100.00	66.03	945.00	1575.00	1260.00	50	ce1001 #19	
40	100.00	114.17	945.00	1575.00	1260.00	50	ce100l #20	
41	150.00	4.23	1919.00	3199.00	2559.00	50	ce150h #1	
42	150.00	14.27	1919.00	3199.00	2559.00	50	ce150h #2	
43	150.00	33.80	1919.00	3199.00	2559.00	50	ce150h #3	
44	150.00	66.03	1919.00	3199.00	2559.00	50	ce150h #4	
45 46	150.00	114.17	1919.00	3199.00	2559.00	50	ce150h #5	
47	150.00 150.00	4.23 14.27	4572.00	5588.00	5080.00	50	ce150h #6	
48	150.00	33.80	4572.00 4572.00	5588.00	5080.00	50	ce150h #7	
49	150.00	66.03	4572.00	5588.00 5588.00	5080.00	50	ce150h #8	
50	150.00	114.17	4572.00	5588.00	5080.00 5080.00	50 50	ce150h #9	
		, 17417	421E.00	JJ00.00	2000.00	90	ce150h #10	

	Temp F		Rpm1	Rpm2	RollRpm	Points	Dataset/Test #	
51 52 53	150.00	14.27	6875.00 6875.00	8403.00	7639.00	50 50	ce150h #11 ce150h #12	
54			6875.00 6875.00			50	ce150h #13	
55	150.00		6875.00		7639.00 7639.00	50 50	ce150h #14 ce150h #15	
56			9178.00	11217.00	10197.50	50	ce150h #16	
57 58			9178.00 9178.00		10197.50	50	ce150h #17	
59			9178.00	11217.00 11217.00	10197.50 10197.50	50 50	ce150h #18 ce150h #19	
60	150.00		9178.00	11217.00	10197.50	50	ce150h #20	
61 62	150.00 150.00	4.23 14.27	114.00	190.00	152.00	50	ce150l #1	
63	150.00	33.80	114.00 114.00	190.00 190.00	152.00 152.00	50 50	ce150l #2 ce150l #3	
64	150.00	66.03	114.00	190.00	152.00	50	ce1501 #4	
65 66	150.00 150.00	114.17	114.00	190.00	152.00	50	ce150l #5	
67	150.00	4.23 14.27	229.00 229.00	381.00 381.00	305.00 305.00	50 50	ce150l #6	
68	150.00	33.80	229.00	381.00	305.00	50	ce150l #7 ce150l #8	
69	150.00	66.03	229.00	381.00	305.00	50	ce150l #9	
70 71	150.00 150.00	114.17 4.23	229.00 487.00	381.00 811.00	305.00 649.00	50 50	ce150l #10	
72	150.00	14.27	487.00	811.00	649.00	50 50	ce150l #11 ce150l #12	
73 77	150.00	33.80	487.00	811.00	649.00	50	ce150l #13	
74 75	150.00 150.00	66.03 114.17	487.00 487.00	811.00 811.00	649.00 649.00	50	ce150l #14	
76	150.00	4.23	945.00	1575.00	1260.00	50 50	ce150l #15 ce150l #16	
77 78	150.00 150.00	14.27	945.00	1575.00	1260.00	50	ce150l #17	
79	150.00	33.80 66.03	945.00 945.00	1575.00 1575.00	1260.00 1260.00	50 50	ce150l #18 ce150l #19	
80	150.00	114.17	945.00	1575.00	1260.00	50	ce1501 #19	
81 82	200.00	4.23 14.27	1919.00	3199.00	2559.00	50	ce200h #1	
83	200.00	33.80	1919.00 1919.00	3199.00 3199.00	2559.00 2559.00	50 50	ce200h #2 ce200h #3	
84	200.00	66.03	1919.00	3199.00	2559.00	50	ce200h #4	
85 86	200.00	114.17 4.23	1919.00 4572.00	3199.00	2559.00	50	ce200h #5	
87	200.00	14.27	4572.00	5588.00 5588.00	5080.00 5080.00	50 50	ce200h #6 ce200h #7	
88	200.00	33.80	4572.00	5588.00	5080.00	50	ce200h #8	
89 90	200.00 200.00	66.03 114.17	4572.00 4572.00	5588.00 5588.00	5080.00	50	ce200h #9	
91	200.00	4.25	6875.00	8403.00	5080.00 7639.00	50 50	ce200h #10 ce200h #11	
92	200.00	14.27	6875.00	8403.00	7639.00	50	ce200h #12	
93 94	200.00	33.80 66.03	6875.00 6875.00	8403.00 8403.00	7639.00	50	ce200h #13	
95	200.00	114.17	6875.00	8403.00	7639.00 7639.00	50 50	ce200h #14 ce200h #15	
96 97	200.00	4.23	9178.00	11217.00	10197.50	50	ce200h #16	
98	200.00 200.00	14.27 33.80	9178.00 9178.00	11217.00 11217.00	10197.50 10197.50	50 50	ce200h #17	
99	200.00	66.03	9178.00	11217.00	10197.50	50	ce200h #18 ce200h #19	
100 101	200.00 200.00	114.17	9178.00	11217.00	10197.50	50	ce200h #20	
102	200.00	4.23 14.27	114.00 114.00	190.00	152.00 152.00	50 50	ce200l #1 ce200l #2	
103	200.00	33.80	114.00	190.00	152.00	50	ce2001 #2	
104 105	200.00	66.03 114.17	114.00 114.00	190.00	152.00	50	ce200l #4	
106	200.00	4.23	229.00	190.00 381.00	152.00 305.00	50 50	ce200l #5 ce200l #6	
107	200.00	14.27	229.00	381.00	305.00	50	ce2001 #7	
108 109	200.00	33.80 66.03	229.00 229.00	381.00 381.00	305.00	50	ce2001 #8	
110	200.00	114.17	229.00	381.00	305.00 305.00	50 50	ce200l #9 ce200l #10	
111	200.00	4.23	487.00	811.00	649.00	50	ce200l #11	
112 113	200.00	14.27 33.80	487.00 487.00	811.00 811.00	649.00	50	ce200l #12	
114	200.00	66.03	487.00	811.00	649.00 649.00	50 50	ce200l #13 ce200l #14	
115	200.00	114.17	487.00	811.00	649.00	50	ce2001 #15	
116 117	200.00	4.23 14.27	945.00 945.00	1575.00 1575.00	1260.00	50	ce200l #16	
118	200.00	33.80	945.00	1575.00	1260.00 1260.00	50 50	ce200l #17 ce200l #18	
119	200.00	66.03	945.00	1575.00	1260.00	50	ce200l #19	
120	200.00	114.17	945.00	1575.00	1260.00	50	ce2001 #20	

	Temp F	Load lbf	Rpm1	Rpm2	RollRpm	Points	Dataset/Test #	ŧ
121	250.00	4.23	1919.00	3199.00	2550 00	E0.	DEOL #4	
122		14.27	1919.00	3199.00	2559.00	50 50	ce250h #1	
123		33.80	1919.00	3199.00	2559.00		ce250h #2	
124	250.00	66.03	1919.00		2559.00 2559.00	50	ce250h #3	
125	250.00	114.17	1919.00	3199.00 3199.00		50	ce250h #4	
126	250.00	4.23	4572.00		2559.00	50	ce250h #5	
127		14.27	4572.00	5588.00 5588.00	5080.00	50	ce250h #6	
128	250.00	33.80	4572.00	5588.00	5080.00 5080.00	50 50	ce250h #7 ce250h #8	
129	250.00	66.03	4572.00	5588.00	5080.00	50	ce250h #6	
130	250.00	114.17	4572.00	5588.00	5080.00	50	ce250h #9	
131	250.00	4.23	6875.00	8403.00	7639.00	50	ce250h #10	
132	250.00	14.27	6875.00	8403.00	7639.00	50	ce250h #11	
133	250.00	33.80	6875.00	8403.00	7639.00	50	ce250h #12	
134	250.00	66.03	6875.00	8403.00	7639.00	50	ce250h #15	
135	250.00	114.17	6875.00	8403.00	7639.00	50	ce250h #15	
136	250.00	4.23	9178.00	11217.00	10197.50	50	ce250h #16	
137	250.00	14.27	9178.00	11217.00	10197.50	50	ce250h #17	
138	250.00	33.80	9178.00	11217.00	10197.50	50	ce250h #18	
139	250.00	66.03	9178.00	11217.00	10197.50	50	ce250h #19	
140	250.00	114.17	9178.00	11217.00	10197.50	50	ce250h #20	
141	250.00	4.23	114.00	190.00	152.00	50	ce2501 #1	
142	250.00	14.27	114.00	190.00	152.00	50	ce2501 #2	
143	250.00	33.80	114.00	190.00	152.00	50	ce2501 #3	
144	250.00	66.03	114.00	190.00	152.00	50	ce250l #4	
145	250.00	114.17	114.00	190.00	152.00	50	ce250l #5	
146	250.00	4.23	229.00	381.00	305.00	50	ce250l #6	
147	250.00	14.27	229.00	381.00	305.00	50	ce250l #7	
148	250.00	33.80	229.00	381.00	305.00	50	ce250l #8	
149	250.00	66.03	229.00	381.00	305.00	50	ce250l #9	
150	250.00	114.17	229.00	381.00	305.00	50	ce250l #10	
151	250.00	4.23	487.00	811.00	649.00	50	ce250l #11	
152	250.00	14.27	487.00	811.00	649.00	50	ce250l #12	
153	250.00	33.80	487.00	811.00	649.00	50	ce250l #13	
154	250.00	66.03	487.00	811.00	649.00	50	ce250l #14	
155	250.00	114.17	487.00	811.00	649.00	50	ce250l #15	
156	250.00	4.23	945.00	1575.00	1260.00	50	ce250l #16	
157	250.00	14.27	945.00	1575.00	1260.00	50	ce250l #17	
158	250.00	33.80	945.00	1575.00	1260.00	50	ce250l #18	
159	250.00	66.03	945.00	1575.00	1260.00	50	ce250l #19	
160 161	250.00	114.17	945.00	1575.00	1260.00	50	ce250l #20	
162	300.00 300.00	4.23 14.27	1919.00	3199.00	2559.00	50	ce300h #1	
163	300.00	33.80	1919.00 1919.00	3199.00 3199.00	2559.00	50 50	ce300h #2	
164	300.00	66.03	1919.00	3199.00	2559.00 2559.00	50 50	ce300h #3	
165	300.00	114.17	1919.00	3199.00	2559.00	50	ce300h #4 ce300h #5	
166	300.00	4.23	4572.00	5588.00	5080.00	50	ce300h #6	
167	300.00	14.27	4572.00	5588.00	5080.00	50	ce300h #7	
168	300.00	33.80	4572.00	5588.00	5080.00	50	ce300h #8	
169	300.00	66.03	4572.00	5588.00	5080.00	50	ce300h #9	
170	300.00	114.17	4572.00	5588.00	5080.00	50	ce300h #10	
171	300.00	4.23	6875.00	8403.00	7639.00	50	ce300h #11	
172	300.00	14.27	6875.00	8403.00	7639.00	50	ce300h #12	
173	300.00	33.80	6875.00	8403.00	7639.00	50	ce300h #13	
174	300.00	66.03	6875.00	8403.00	7639.00	50	ce300h #14	
175	300.00	114.17	6875.00	8403.00	7639.00	50	ce300h #15	
176	300.00	4.23	9178.00	11217.00	10197.50	50	ce300h #16	
177	300.00	14.27	9178.00	11217.00	10197.50	50	ce300h #17	
178	300.00	33.80	9178.00	11217.00	10197.50	50	ce300h #18	
179	300.00	66.03	9178.00	11217.00	10197.50	50	ce300h #19	
180	300.00	114.17	9178.00	11217.00	10197.50	50	ce300h #20	
181	300.00	4.23	114.00	190.00	152.00	50	ce300l #1	
182	300.00	14.27	114.00	190.00	152.00	50	ce300l #2	
183	300.00	33.80	114.00	190.00	152.00	50	ce300l #3	
184	300.00	66.03	114.00	190.00	152.00	50	ce3001 #4	
185	300.00	114.17	114.00	190.00	152.00	50	ce300l #5	
186	300.00	4.23	229.00	381.00	305.00	50	ce300l #6	
187 188	300.00 300.00	14.27	229.00	381.00	305.00	50	ce300l #7	
189	300.00	33.80 66.03	229.00 229.00	381.00	305.00	50	ce3001 #8	
190	300.00	114.17	229.00	381.00 381.00	305.00 305.00	50 50	ce300l #9	
.,,	500.00	117.17	££7.00	201.00	303.00	50	ce300l #10	

Data set: CE 88-177 Demnum S-20 ....continued

	Tem	p Load F lbf	Rpm1	Rpm2	RollRpm	Points	Dataset/Test #
191			487.00	811.00	649.00	50	ce300l #11
192			487.00	811.00	649.00	50	ce300l #12
193			487.00	811.00	649.00	50	ce3001 #12
194	300.00		487.00	811.00	649.00	50	ce3001 #14
195	300.00		487.00	811.00	649.00	50	ce3001 #15
196	300.00		945.00	1575.00	1260.00	50	ce3001 #15
197	300.00		945.00	1575.00	1260.00	50	ce3001 #17
198	300.00		945.00	1575.00	1260.00	50	ce3001 #17
199	300.00		945.00	1575.00	1260.00	50	ce3001 #19
200	300.00		945.00	1575.00	1260.00	50	ce3001 #20
201	80.00		1919.00	3199.00	2559.00	50	ce80h #1
202	80.00		1919.00	3199.00	2559.00	50	ce80h #2
203	80.00		1919.00	3199.00	2559.00	50	ce80h #3
204	80.00		1919.00	3199.00	2559.00	50	ce80h #4
205	80.00	114.17	1919.00	3199.00	2559.00	50	ce80h #5
206	80.00	4.23	4572.00	5588.00	5080.00	50	ce80h #6
207	80.00	14.27	4572.00	5588.00	5080.00	50	ce80h #7
208	80.00	33.80	4572.00	5588.00	5080.00	50	ce80h #8
209	80.00	66.03	4572.00	5588.00	5080.00	50	ce80h #9
210	80.00	114.17	4572.00	5588.00	5080.00	50	ce80h #10
211	80.00	4.23	6875.00	8403.00	7639.00	50	ce80h #11
212	80.00	14.27	6875.00	8403.00	7639.00	50	ce80h #12
213	80.00	33.80	6875.00	8403.00	7639.00	50	ce80h #13
214 215	80.00	66.03	6875.00	8403.00	7639.00	50	ce80h #14
216	80.00	114.17	6875.00	8403.00	7639.00	50	ce80h #15
217	80.00	4.23	9178.00	11217.00	10197.50	50	ce80h #16
218	80.00	14.27	9178.00	11217.00	10197.50	50	ce80h #17
219	80.00 80.00	33.80	9178.00	11217.00	10197.50	50	ce80h #18
220	80.00	66.03 114.17	9178.00	11217.00	10197.50	50	ce80h #19
221	80.00	4.23	9178.00	11217.00	10197.50	50	ce80h #20
222	80.00	14.27	114.00	190.00	152.00	50	ce80l #1
223	80.00	33.80	114.00	190.00	152.00	50	ce80l #2
224	80.00	66.03	114.00 114.00	190.00	152.00	50	ce80l #3
225	80.00	114.17	114.00	190.00	152.00	50	ce80l #4
226	80.00	4.23	229.00	190.00 381.00	152.00	50	ce80l #5
227	80.00	14.27	229.00	381.00	305.00	50	ce80l #6
228	80.00	33.80	229.00	381.00	305.00	50	ce80l #7
229	80.00	66.03	229.00	381.00	305.00	50	ce801 #8
230	80.00	114.17	229.00	381.00	305.00	50	ce80l #9
231	80.00	4.23	487.00	811.00	305.00	50	ce80l #10
232	80.00	14.27	487.00	811.00	649.00 649.00	50	ce80l #11
233	80.00	33.80	487.00	811.00		50	ce80l #12
234	80.00	66.03	487.00	811.00	649.00 649.00	. 50	ce80l #13
235	80.00	114.17	487.00	811.00	649.00	50	ce80l #14
236	80.00	4.23	945.00	1575.00	1260.00	50 50	ce80l #15
237	80.00	14.27	945.00	1575.00	1260.00	50 50	ce801 #16
238	80.00	33.80	945.00	1575.00	1260.00	50 50	ce80l #17
239	80.00	66.03	945.00	1575.00	1260.00	50 50	ce80l #18
240	80.00	114.17	945.00	1575.00	1260.00	50 50	ce80l #19
					1200.00	20	ce80l #20

Filename	Temp	RollRom	DataCurve #
ce1.dat	80.00	1260.00	237 238 239 240
ce2.dat	80.00	2559.00	202 203 204 205
ce3.dat	80.00	5080.00	207 208 209 210
ce4.dat	80.00	7639.00	212 213 214 215
ce5.dat	80.00	10197.50	217 218 219 220
ce6.dat	100.00	1260.00	37 38 39 40
ce7.dat	100.00	2559.00	2 3 4 5
ce8.dat	100.00	5080.00	7 8 9 10
ce9.dat	100.00	7639.00	12 13 14 15
ce10.dat	100.00	10197.50	17 18 19 20
ce11.dat	150.00	1260.00	77 78 79 80
ce12.dat	150.00	2559.00	42 43 44 45
ce13.dat	150.00	5080.00	47 48 49 50
ce14.dat	150.00	7639.00	52 53 54 55
ce15.dat	150.00	10197.50	57 58 59 60
ce16.dat	200.00	1260.00	117 118 119 120
ce17.dat	200.00	2559.00	82 83 84 85
ce18.dat	200.00	5080.00	87 88 89 90
ce19.dat	200.00	7639.00	92 93 94 95
ce20.dat	200.00	10197.50	97 98 99 100
ce21.dat	250.00	1260.00	157 158 159 160
ce22.dat	250.00	2559.00	122 123 124 125
ce23.dat	250.00	5080.00	127 128 129 130
ce24.dat	250.00	7639.00	132 133 134 135
ce25.dat	250.00	10197.50	137 138 139 140
ce26.dat	300.00	1260.00	197 198 199 200
ce27.dat	300.00	2559.00	162 163 164 165
ce28.dat	300.00	5080.00	167 168 169 170
ce29.dat	300.00	7639.00	172 173 174 175
ce30.dat	300.00	10197.50	177 178 179 180

